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Editorials

MEDICAL RESEARCH WORK

RESEARCH work of extraordinary value to the world was accomplished in discovering the cause of the malarial fevers. The scourges of tropical and temperatic climates were placed under the control of Preventive Medicine in 1880 by Laveran, who proved that the plasmodium malaria is really the causative agent of marsh fevers—the plasmodium lives in the round blood cells of man and, when examined microscopically, it presents different appearances—round bodies, flagellated round bodies, cresentic and rosework bodies.

Laveran began his investigations when he was a poor army surgeon at Algiers, where he was confronted with malarial fevers, which killed and invalided many of the soldiers of the French Army. He not only accomplished a great work in checking these fevers, but he started investigations going among other scientists which have resulted in the

clearing up of the once mysterious cause of these malarial fevers.

As a direct result of the scientific work done by Laveran and his successors, the policing of the Amopheles mosquito has become a part, the most important part in the campaign against malaria. In recent years this work has received its most glorious illustration under American auspices, by the studied exclusion of malarial fevers from the zone of the Panama canal. A rather strange commentary on the growth of medical science is that while the prevention of malaria has been exploited to the utmost, the treatment of malarial fevers in general remains in the same positions as when Messrs. Caventon and Pelletier, both Frenchmen, extracted quinine from Peruvian bark in 1820.

The research work done at Havana by Dr. Finlay, confirmed by the crucial experiment by Dr. Walter Reed, proved that the normal mode of transmission of the yellow fever is through the bite of the common mosquito of the West Indies, Stegomya Fasciata. When the germ of yellow fever enters the stomach of a mosquito, which has fed on a yellow fever patient before the fourth day of illness, it must undergo some further development in the body of the insect, since the latter remains non-infective till twelve days have elapsed. It has been found that the mosquito may thereafter remain infective for at least fifty-seven days. These discoveries have completely revolutionized the preventive treatment of yellow fever. This disease is not transmitted by vomitus

and, as long as the mosquitoes are excluded, there is no risk in nursing yellow fever cases.

In Canada a prominent infection is typhoid fever. Its victims, who belong principally to the rural classes, are sent to civic hospitals for treatment. Medical research is not asked to discover the cause of typhoid fever. That is well known; but in spite of the efforts of sanitarians and physicians we seem powerless to prevent its dissemination among the population. Its diffusion by means of water supplies is generally accepted as the most common cause of typhoid fever. The common use of milk as a food provides a ready means for the transference of the typhoid germ from the sick to the well. Milk may be contaminated by foul water, by the means of flies, or by being taken from the cow or otherwise handled by a person whose hands are infected, because he is nursing a case of typhoid fever, is himself suffering from that disease in an acute form, or is a chronic "typhoid carrier." The last class are exceedingly dangerous to the community. They continue to excrete for years typhoid germs in their stools or urine and sometimes harbor them in the gall bladder.

The period of detention in hospitals for typhoid fever cases should be referred to the civic medical officer. Medical research men of the hospitals should be on the look out for the "typhoid carriers." The policing of "typhoid carriers" in Canada is of as great importance as the policing of the mosquito in malarial regions. If the medical research men of the Canadian universities would help to prevent the

activity of the "typhoid carriers," we believe that they would soon extinguish typhoid fever in this country.

THE AMERICAN FUND FOR BELGIAN PHYSICIANS

Dr. H. Edwin Lewis, Editor of *American Medicine,* and President of the American Medical Editors' Association, has issued a call for a gift from the doctors of America to the physicians of plucky little Belgium. Everybody seems to be doing something for the people of that land, and just a word is all that is needed and the response is ever forthcoming—and now, when, perhaps a little of war's horror has crept into all hearts, deep with understanding, and a little of its pinch of poverty in the unavoidable mix-up of things has crept into this continent, flowing (poetically) with milk and honey, the touch of human sympathy still flows in abundance, even if it has come down not to just *giving,* but to *dividing* what one has left. Let us divide with our confreres, the Belgian doctors, at least what we can possibly spare, in these days of their great sorrow, deprivation and yet noble self-sacrifice and service. Dr. Lewis will be pleased to hear from one and all, his address being 18 East 41st St., New York City.

Canadian Journal of Medicine and Surgery

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Original Contributions

THE EARLY DIAGNOSIS OF DEMENTIA PRECOX*

By C. K. Clarke, M.D.

I am aware that the subject on which I shall address you briefly is not one of very intense interest to those whose studies do not follow along special lines, and yet some of the points brought out may be profitably discussed by many of the members.

The psychiatrist is apt to be regarded as almost as big a crank as many of his patients, and yet even he has occasionally some justification for the opinions he expresses, although very little for those he is supposed to have expressed.

Since my removal from asylum practice to that of a General Hospital, I have been struck by the fact that very few of the attending physicians are familiar with the landmarks of the psychoses and are frequently inclined to call well-marked cases of such diseases as dementia precox by any other name than the correct one; indeed, quite frequently the endeavor is made to find a new classification for every case that comes under observation. Frequently the psychosis is overlooked and the convenient or inconvenient terms, neurasthenia and hysteria, applied to gloss over the troubles experienced in classifying certain nervous symptoms. Now I do not wish to pose as a dictator on a subject fraught with difficulty, but I would suggest that many physicians fail to recognize the proper method of investigating a psychosis and overlook the essentials. Perhaps this is the outcome of defective teaching in the university, teaching for which I am, to a certain extent, responsible; at all events, it is a fact that a certain number of those physicians I have

* Read before the Section of Medicine, Academy of Medicine, Toronto, October 13th, 1914.

observed, pay far too much attention to certain features of a case without dealing with it in a broad and comprehensive way; in fact, pass by the most important essentials in making a diagnosis.

In discussing cases of psychoses which come up daily in the wards, our housemen nearly always furnish the same reply to certain enquiries. If, for example, I tell them that Mrs. Smith has certain delusions or hallucinations and ask them why they did not find that out, the reply comes, "But she did not say anything about them to me." I am nearly always safe in suggesting that they did not ask the questions necessary to discover these important facts; indeed, this type of houseman exemplifies what we find commonly in a certain class of physician, who can see only one thing in a patient and deliberately overlooks what should be apparent to a careful investigator. Ordinarily an insane person does not furnish many difficulties in the way of examination, as he will generally co-operate pretty well, but occasionally there is a hard nut to crack and time, patience and adroitness will be required to get at the facts necessary to enable one to make a diagnosis.

In dealing with supposed cases of dementia precox, for example, it is absolutely essential that one shall get, if possible, a life history of the patient he is examining; indeed, after some years of experience, one can almost write the life history before many of the questions are asked. Very little work has been done on the first stages of dementia precox, a disease which undoubtedly can, in many of the cases, be traced back to the early periods of childhood. In other words, the victims of this disease have the earmarks of fate stamped upon them from the first dawn of consciousness. It is this fact that makes the prognosis so unfavorable. Since developing a clinic for the so-called defective and feeble-minded in the General Hospital it has become possible to make investigations which, if I may dare to pose as a prophet in my own country, will eventually throw some interesting light on the early history of dementia precox. Certain children appear before us who will not rank as defectives when studied by the Binet-Simon or similar tests, but whose striking characteristics can only suggest the early

stages of dementia precox. Already they have developed some of the striking features of the disease, such as unexplainable impulses, defective judgment, exaggerated mannerisms and stereotypies, echolalia, and even echopraxia. School teachers take great exception to my remarks on such cases, claiming that I frequently classify those they regard as exceedingly clever, quite improperly. It is a case of a different point of view and a different way of studying the individual.

If we are to arrive at correct conclusions regarding the true nature of dementia precox as a disease, to decide whether Kraepelin, the clever psychiatrist, who believes that we have to deal largely with a biochemical problem, is correct, or whether Jung, Freud, Bleuler, and our own Ernest Jones are nearer the mark when they lay such stress on the psychological side have reached a solution of the difficult problem. One cannot know Kraepelin's work in the great practical school of clinical experience without feeling that his arrow has struck nearest the centre of the target, and I know my own long service makes me feel that the psychologists have by far the worst of the argument. Certainly they have not provided any more satisfactory way of dealing with the disease, even with their far-heralded psycho-analysis, which, after all, is simply an old friend bedecked in new garments. It is, of course, interesting to attempt to study psychologically the development of illusions, hallucinations and delusions, but I must confess that when an attempt has been made to correct these by the psycho-analytic method, the result has been most disappointing. Possibly the believers of the psychological theory have something of value to offer, but they have not answered Kraepelin's arguments, nor have they shown conclusively that they have anything practical to suggest either in the way of treatment or prophylaxis.

Although an optimist by nature, and also being a firm believer in the finding of the pot of gold at the foot of the rainbow, yet I am forced to admit that we are really completely in the dark regarding the origin of this scourge of the human race, although I am firmly convinced that in some varieties of dementia precox, notably the catatonic, biochemical explanations will be found. We know that in these cases disturbances

of metabolism profoundly modify the mental processes and in certain phases striking differences in the composition of the blood occur. Unfortunately the amount of co-related investigation, clinical, psychological, biochemical, and anatomical work done in the asylums of the world has been so small that the problems have scarcely been touched. Most of these institutions are undermanned, the spirit of investigation is killed, the laboratories do not exist, and outside of a few psychiatric clinics in Germany and America, no rational attempt can be made to reach conclusions as reasonable as those in other spheres of general medicine. Very little satisfactory work has been done on the very early stages of the disease, and psychiatrists have little opportunity to study it from this point of view, because the majority of patients going to asylums have long since passed the very early stages. I know that by my own experience covering many years. Since going to the General Hospital it has been possible to follow up the developing cases in a manner before impossible. Parents hesitate about taking an abnormal child to the medical officer of an asylum, although they will freely seek the opinion of a psychiatrist in a hospital. As a result of this I have, during the last few years, seen a large number of cases of dementia precox in what may be called the developmental period, and what has been learned simply makes clear what one would suppose to be the case after delving into the thousands of life histories that were presented at the asylum. Since the establishment of a clinic for feeble-minded, which has an intimate connection with the Juvenile Court, it has been interesting to find that many of the falsely labelled defective children are those who are in reality developing a psychosis. In some directions they may be precocious, and their behavior is not to be explained by the theory that they are feeble-minded. Of course precocity is in itself at times an evidence of feeble-mindedness, but the cases I refer to stand in a class by themselves. Take, for example, the little girl I shall present after this address. To the casual observer she presents nothing more than an abnormal brightness. She does all the Binet-Simon tests for one of her age with a promptitude almost startling. What is there in her case to cause her to come under examination? She is a difficult

problem because of two things, intense impulsiveness and absolute lack of judgment. In addition she is manneristic, indeed has already so many of the earmarks of dementia precox that it is not difficult to make a very accurate prognosis. If you were not familiar with this type of child, you might be inclined to think that she would grow out of her peculiarities. Unfortunately such is not the likely prognosis. She was brought to this country by the Salvation Army a few months ago. No family history is to be obtained,* and she came to us from the Juvenile Court for examination, as she had proved to be unmanageable and had done some very startling things, such as jumping out of a second storey window and hanging from the gutter of a high shed, from which she was rescued by the police. Although only seven, she runs away from the home regularly and always gives the same explanation, viz., that she cannot tell why she does these things. Her whole makeup is characterized by impulse. When she is at ease, she jerks out her replies in a manneristic and impulsive way, and her defects of judgment are marked. I have known many such children and have, in time, seen them become well marked cases of dementia precox. One boy of the same type jumped off a dock into deep water to catch a fish he saw swimming by. He nearly lost his life, as he could not swim. A little later on he did more extravagant things along the same line and developed a remarkable quixotic spirit. He burned down a building on a sudden impulse, thinking that he would do a kind act for a friend who was short of money and who might be benefited by the insurance; then he burned down a whole series of buildings without any apparent reason beyond that of ungovernable impulse. When he came under my care he was full of quixotic schemes, and in time made an unnecessarily dramatic escape from the asylum, after warning me that he intended to do so. In a few months he wrote to me that he was afraid of himself and believed that he was being accused as the author of every fire occurring in the city, and begged to be taken back. He returned in due course and was little trouble, although his judgment and impulses were as much astray as

*It has been learned that this child's mother was insane and an inmate of an asylum.

Dr. Clarke exhibited two cases of early dementia precox, and gave histories of several others.

ever. One day he was on a dock that collapsed, and many people were thrown into the water, but all were saved. In the excitement he imagined that he had played a prominent part as a rescuer, although he had not done anything of the kind. He was greatly elated the next day, and told me that he had at last discovered his true mission, that of a life saver. He swam fairly well and practised most diligently every day. One evening he failed to return to the wards, and I found his clothing neatly folded by the lake side. Not far from shore his body was found. Whether he deliberately drowned himself or died from over-exertion we could not determine, although the latter supposition was probably the correct one.

I must apologize for detailing cases, but after all in this way I can best illustrate my point of view and explain the reasons why conclusions are arrived at.

Here is a Juvenile Court case, March 26, A. B., a boy of twelve, who already has the typical characteristics of many of the more advanced cases of dementia precox. I am sorry that the boy cannot be secured for presentation, as he would interest you greatly. Before giving the results of examinations and the conclusions arrived at, it may not be out of place to say that school teachers who have had him agree that I am absolutely wrong in my diagnosis, one enthusiast saying that the boy is neither defective nor insane, but a normal child of great intelligence. Another states that he is very bright but hard to manage, being sulky-tempered. A third describes the boy as normal but unfairly treated, although he offers no satisfactory evidence to back up his statement which is, as a matter of fact, not correct. Now, here is a boy who comes to us with a good record in scholarship, with a character not badly besmirched in school and a very warm defence by his teachers who, like many teachers, have not taken the trouble to substitute facts for prejudices. What were the facts? This boy came from the Juvenile Court with the following record: " He was brought to the court on a charge of vagrancy and pleaded guilty. The officer found him sleeping in an engine-room in the north end of the city. He was found the night before locked in a closet over a manhole, and same had to be upset to reach the boy, who was in great danger of losing his

life; has been found many times in different parts of the city. The father had usually complained of boy's absence to police, but had generally found him. The father stated that his son ran away constantly, left home on Friday and was absent several nights. Teacher reports him as bright but difficult to control and very self-willed. Has been eighteen months in Canada. Came from Scotland. Mother complained that she could not control the boy. On April 2nd was again taken up on a charge of vagrancy, and the mother said that the boy had only been at home one night since the first appearance in court. When he came to the clinic he was dejected, surly, somewhat dazed, and most difficult to examine, so I had him brought to my office a little later on in the month." The notes made on the second examination are as follows: "B. belongs to a difficult class to deal with, as he is precocious in some directions and yet not normal, not vicious but lacking in many of the qualities which stand for sanity. To show his attitude, he insists that it is a boy's place to have nothing but a good time, and he says decidedly that nothing would induce him to help his mother out in her daily work. He seems devoid of judgment and exhibits so many mannerisms and stereotypies that it is quite evident he is developing a psychosis, dementia precox, the important points in the diagnosis being lack of judgment, mannerisms and stereotypies, lack of insight and abnormal point of view. His precocity is striking. Although but twelve, he argues his point with remarkable persistence. He is not truthful, and much of the information imparted by his mother, who is evidently fair and candid in her statements, is borne out by what the boy is forced to admit. He has been a difficult lad since he was six, and apparently an unmanageable one for a year or more. He has no affection for anyone and a marked dislike for his mother, who irritates him by asking him to help her out from time to time with her household duties. His conception, for example, as to how he should spend a Saturday is as follows: Get up at eleven o'clock in the morning, have dinner, go fishing, play the rest of the afternoon, come home, have supper, and then go to the movies. He stoutly maintains that this is the proper way for the modern boy to spend Saturday. A week-day he would spend

in going to school and studying; after school would play until six, have supper and then go to a show. He feels that a boy cannot have too much amusement. His ambition is to become a lawyer, so that he may take an active part in the many murder trials which occur. His conception of such things is childish and shows absolute lack of judgment or true appreciation. B.'s accounts of his wanderings and his dodging the police are primitive and childish, and he can give no adequate reason as to why he constantly ran away, although he had definite ideas of persecution.

To those familiar with dementia precox there could be no hesitation in placing this lad and the prognosis is not difficult to make, even if it does not agree with that so freely offered by the inexperienced.

What then, are the points in making a probable diagnosis of dementia precox in the early stages? When children are brought to me with a suspicion of abnormality or defect, I make careful enquiry regarding first family history, then environment, social condition in family; in fact, learn everything possible regarding the parents, other children, etc. The intellectual and psychological tests along the Binet-Simon lines of investigation are carefully followed with the idea of learning whether we have to deal with defect or disease. These tests are of little use, of course, in the class of cases we are dealing with beyond eliminating the suspicion of defect. Indeed, they sometimes fail there, but as a rule they are of great use. Having eliminated defect, one has to be very careful to estimate the effect of environment and social conditions. School reports are sometimes of use, but often misleading, as few teachers have little practical knowledge of any psychology but the textbook variety. They have had no adequate training to enable them to judge fairly and make estimates of mental deficiency. Given a bad family history, because this is almost invariable in dementia precox, a precocious child with marked impulses not to be explained, mannerisms, stereotypies, defective judgments and sometimes abnormal sexual developments, one may fairly assume that incipient dementia precox may be the explanation. This only enumerates a few of the features, but in a brief paper one cannot be very explicit without speaking at great length. The point I wish to make is,

that it may be of great importance to make clear distinctions between disease and defect at the earliest possible moment. Certainly any marked change of character in early youth must be looked on with grave suspicion, and the children who are moody, introspective and erratic must be scrutinized with care.

The question of treatment is a very broad one, one that cannot be fully, if at all, discussed here.

THE NECESSITY OF INSTITUTIONAL TREATMENT FOR INEBRIATES

By T. D. Crothers, M.D., Hartford, Conn.

Inebriety is a most complex and obscure neurosis. Many of the causes are both active and contributing, depending on most diverse conditions and surroundings. Ancestral influences and the varied circumstances of infancy and childhood have all been active in the development of this neurosis. Unless these facts are practically recognized all theories and treatment will be very ineffectual.

There are several descriptive terms which give one a clearer idea of the conditions which require treatment; thus diathesis or inherited tendencies to break out in this or that form of degeneration are veritable factors to be considered.

These may appear in alcoholic, epileptoid, nutrient disorders or tendencies to develop into some form of insanity or brain disease. Then toxemias formed within and taken from without produce certain distinct conditions for which alcohol is taken as a remedy.

There is another distinct neurosis, termed paresis, in which mental exaltation and delusions of grandeur take the place of sanity, and the patient lives in an unreal world. These are intimately associated with inebriety in its various forms.

Another condition has been described as epileptoid states, spasmodic palsies and convulsive concentrations of nerve forces and energies. Many inebriates develop this in the periodic drink attacks. The terms imbecility and dementia describe a persistent lowering of every mental and physical activity of the body, and

with it an unconsciousness of this condition. These follow and may precede the drink craze. There are other terms used to describe actual physical states that are interchangeable in varying degrees, and all indicate a certain complexity of symptoms that are very confusing to any, except the specialist, or one who makes exhaustive studies.

It is evident that segregation in special surroundings is the great essential for the favorable application of means and measures for recovery. Sanatoriums, hospitals, farm colonies in the country or suburbs of the city are requisite for successful treatment. All such buildings must have surroundings that will promote rest and quietness, and at the same time give every possible aid to a healthy natural life. They should be home-like in structure and size, with abundance of air and water and absence of every possible conflicting element that would disturb the mind and body. These need not be expensive buildings, but should be cosy and comfortable. In some parts of the country tents could be utilized to the best advantage, or rough sheds with open sides where patients could have the benefit of the open air.

For chronic cases and those supported by public charity such buildings and tents would serve a most useful purpose. Farm colonies promise the greatest facilities for fresh air, exercise and nerve quietness. All the appliances of the best hospital in the world could be gathered in appropriate buildings, and made use of, in such places.

These hospital homes must appeal to the mind of the patient and present something entirely different from what he is accustomed to. In this way the physical organism can be impressed. Hydropathic measures should be supplied in great abundance. Water for both internal and external use and applied along scientific lines at regular intervals, is most important. Baths of all forms and in all temperatures, duration and technique, applied in varied ways to meet the organism and its demands, are essential.

Such measures appeal to the surface of the body and through elimination restore the congestion and derangement that is incident to these conditions. In addition to this, electrical appliances, including the various currents that are found to be tonics

and stimulants, either through the medium of water or air, should occupy a large share of the treatment.

Light in its various forms, either by direct use from the sun or from electrical currents and lamps, all have a vast unknown power and can be adapted and applied in any way for the best results. These three remedial forces can be provided in institutions to more exact degrees and under more skilful direction than in home or office.

Persons familiar with these measures can use them in a most practical way. There are many drugs that are equally useful for certain conditions, and these can be administered in a most scientific way and the results from them studied.

The diet and sanitary conditions concentrated with the above modalities greatly increase their efficiency. Many patients need a revolution in diet, a total change in the habits of eating. The unbalanced foods which they have been using have contributed largely to this neurosis.

Great quantities of proteids, carbohydrates and fats have been active causes of toxemias, unrecognized. When these are considered and administered with as much exactness as drugs, they are very powerful agents. These are conditions which can only be made practical in an institution.

Questions of heat and cold, of ventilation, can all be grouped side by side as assistants in the exact physical means required for restoration. It is impossible in any home to secure an assemblage of these factors and remedies with such exactness and precision. Therefore hospital and sanatorium treatment is as absolutely necessary as a surgical hospital for injuries which call for mechanical treatment by the knife or otherwise.

Whatever the condition of the patient may be, a few days' treatment rouses a desire to assist the physician in permanent recovery. This is a psychical influence which grows and in many instances is the most dominant force of all. As the patient recovers the prospect of cure increases, and with it new confidence and new trust, centring on medical skill and the means used to carry out the work.

If the remorse period should come on, as it does in many persons who have very sensitive organisms, this can be turned to the very best purpose in the study of conditions of weakness, ex-

haustion and peril. If this is cultivated by a wise physician, who seeks to give direction to the impulse to know how to avoid the perils of the past in the future, a new remedial force is brought into recognition.

In persons who have not reached the chronic stage there can often be roused an intense desire to know why they have used spirits and how they can possibly be avoided in the future.

In an institution the physician can make what is called suggestions, but are really a species of mental training, and direct the purposes and ambitions of the patient along new lines, which overcome much of the physical weakness of the past.

There is here a possibility of knowing the mental perversions of thought and mind forces and correcting them, and in this way placing the patient in a higher range of thought and realization of his own needs and what he must do. It is here that mental and moral forces can be called in to contribute to the restorative processes. Here the skilled physician can apply daily exact mental means and measures which are hardly possible in the home.

With all the other physical appliances, supplemented by the psychical forces, the highest kind of scientific treatment can be given. Many patients need mental revolution as much as physical change and revolution. They need breaking up of old surroundings and old methods of thought and a new world of faith and hope.

The professional man, as well as the layman, feels the stimulus of such a change. While recognizing the necessity, it can rarely be made practical and permanent in homes. The man of wealth living in luxurious surroundings needs breaking up of the conditions in which he lives; he needs to make an effort to adapt himself to newer and plainer environments.

His selfish thoughts of luxury and ease must be changed and directed to helping others. He must be made to recognize that he has duties and responsibilities which will bring him keener pleasure to put in practice, than any selfish aspirations, and when these are confirmed by physical measures they become realities.

Many inebriates possessed with wealth need this change specifically and a lifting out of their old surroundings into newer

and wider fields of activity. If the patient is a poor, struggling, discouraged worker in surroundings which antagonize his best instincts and purposes, a proper hospital with the right appliances, managed by the right men, gives him a new door of escape and a physical vigor which enables him to rise above his dead past.

To the poor incurable, who is down in the terminal stages of life, without a home or any possible escape in the future, the hospital opens a new land which is practically a heaven compared with his past. His disabilities are overcome, his surroundings are improved, his mind is stimulated and desire for a better life, both physical and mental, pervades his organism.

Nothing can give a greater promise for the future than exact military surroundings, with exact duties, exact responsibilities and exact returns. Practical men proclaim the possibility and the absolute certainty in the future of housing paupers, petty criminals and the armies of men and women living along these lines, and making them self-supporting, self-respecting citizens, changing them from consumers to producers. This can be done. It awaits a larger public sentiment and the proper men and appliances to make it practical.

Beyond this, there is recognized a large number of drink and drug neurotics who are becoming worse and worse, and being educated for crime, pauperism and diseases which make them dependent on the community. They can all be housed and segregated in different hospitals adapted to meet their varied conditions and re-educated, restored, reclaimed and made to become self-supporters.

There is a much larger class who drink spirits and take drugs for pain, who are physically incapacitated to live normal, healthy lives. They are unable to direct and control their impulses or selfish longings. They are unable to live in harmony with the surroundings. They are always burdens. They are always centres of the worst possible influences. They are the persons who need segregation in hospitals and colonies. Many of them can never live elsewhere. They must have homes provided for them, rules of conduct, and duties and responsibilities and compulsion to carry them out. They can be respectable citizens then.

In all large or small institutions which have been at work very long there are examples of this class who can live in an institution well and normally, but who outside are disorganized and incapacitated. They seem to lose all sense of personal responsibility when alone, but an institution furnishes them the exact guide which they need.

It is not all compulsory. There grows up a feeling of dependence and attachment, resembling that of a railroad man or a sailor who never feels at home or comfortable in any other surroundings. This is the field for an increasing number of incapables. The demand far exceeds the institutions to accommodate them. The institutions may be imperfect or the appliances wanting, but it is the men with talent to know how to apply these measures in the best possible way that are the most essential.

An example of a man who for forty years had managed a great industry, then suddenly became an inebriate. He was placed in an institution, recovered, and for many years afterwards could only live temperate in this institution. It was a house of refuge for him. Out in the world he was lost. In the institution, where everything was regulated for him, he was safe and normal.

All talk of specific treatment by concealed drugs or combinations of drugs indicates dense ignorance of the conditions present. Every advance of science from laboratory and clinical experience gives additional evidence of the value of institutional treatment in sanatoriums, hospitals and farm colonies. This does not mean that this class cannot be treated at home in different stages, or that the family physician is unable to carry out the work. It signifies that such places are necessary, either preliminary or in the after-treatment of profound and widespread degenerating influences.

The family physician should recognize this condition at first, and insist that active means and measures in such places be utilized, and later, when they have temporarily become restored, he can be called on to continue the work.

When the active physician recognizes the real nature and character of this work, he will be most anxious to sustain and support institutional treatment, both in the early and later stages.

Selected Articles

A NOTE UPON THE WOUNDS OF THE PRESENT CAMPAIGN

By G. H. Makins, C.B., F.R.C.S., Eng.,
Consulting Surgeon to the Forces.

Perhaps no greater surprise has been experienced than the nature of the wounds met with in the present war. The relative frequency of wounds from bullets of small calibre and those inflicted by shrapnel or fragments of shells which was observed in the South African war has been actually reversed. Moreover, of the limited number of bullet wounds a considerable portion have been inflicted by machine guns of the Maxim type and not by rifles.

A survey of the serious wounds in any hospital forcibly reminds the observer of the water-color drawings made by Sir Charles Bell, and preserved at the Royal Army Medical College, and he seems transported to the era of the Peninsular war or of the Crimea. There is, in fact, little difference between wounds inflicted by the German shrapnel and those of the round ball fired from the old-fashioned musket.

Recent experience as to the course taken by bullet and shell wounds respectively has been fully confirmed. Wounds produced by the small calibre bullet maintain an aseptic condition if uncomplicated, while shrapnel and shell wounds without exception become infected and suppurate. The mere occurrence of suppuration in the case of even extensive wounds of the soft parts has led to less serious consequences than might have been expected; the sloughy surfaces rapidly clean up, especially under the influence of an iodine bath (3i. to the Oi.), and the patients,

after a couple of days' rest in bed, show wonderfully little sign of constitutional infection. This is also the case in many of the compound fractures, although it is difficult to gauge how long and tedious their course to ultimate recovery may prove.

Nature of the Wounds.

The nature of the rifle wounds differs little, if at all, from that observed in the case of the Lee-Metford or dome-shaped Mauser bullet, except that the openings are of slightly larger size. The comparative infrequency of bullet wounds accounts for the fact that isolated nerve and vascular injuries are not common.

The wounds produced by the shrapnel balls vary in importance with the velocity retained at the moment of impact; some merely bruise, while others penetrate, and others, again, produce injuries of the most severe "explosive type." The entry wounds are comparatively small, often of the slit or gutter type, while the exit, especially where the bones are near the surface, as in the forearm or leg, may be a large mass of extruded lacerated muscle with numerous fragments of the comminuted bone exposed upon the surface. Such wounds are undoubtedly far more common than was the case in South Africa, and although some may be due to rifle bullets, the men themselves are confident they were produced by shrapnel. The patients also attribute extensive lacerations of the soft parts without injury to the bones to shrapnel bullets, but it seems obvious that these have been caused by fragments of the case or of high explosive shells. Such fragments penetrate, sometimes leaving a narrow bridge of skin over an extensive laceration of the subjacent soft parts. When they strike the bones a deep wedge-shaped groove is cut, numerous fragments of the bone adhering to the soft parts, while the extremities of the cut bone sometimes present the appearance of a fracture of cane, actual threads of bone projecting into the wound. Lodgment both of bullets and shrapnel balls is comparatively common, and contour wounds of the chest and head are not rare.

Certain special characteristics due to the use of machine guns and shrapnel are very striking. Thus a man struck by a

machine gun may have a line of wounds passing from right to left across the body; in one case five separate wounds at the same level were distributed across the chest. Again, when exposed to shrapnel fire, where the shell bursts low, a very large number of balls may strike the same individual; as many as thirty-four wounds of varying severity have been counted on the body of one man. In spite of the fact that no separate wound is of any severity, such multiple wounds cause extreme shock, from which many of the patients die, while others take some days before reaction is complete.

The vast majority of the wounds do well, the bullet wounds of the soft parts taking the same uneventful course already familiar. In the more serious injuries due to shrapnel or fragments of shells, a few days' rest usually suffices to reinvigorate the patients; there is little evidence of constitutional infection either in the general appearance, the temperature, or the pulse-rate, and the men eat, drink and sleep well. It is also very remarkable how little the majority of the men are affected psychically by the grave conditions, both bodily and mental, to which they have been exposed for some weeks.

Wound Complications.

Suppuration and a variable amount of sloughing of the soft parts are the rule. After a few days the most striking feature is the rigid eversion of the skin margin of the wound which persists for some time. When the wound is a deep circular one the resemblance to a crater in a malignant growth is very great, but in a short time the edge softens and flattens down, the wound itself then becoming covered with large masses of soft granulations which bleed freely.

In a certain proportion of cases the result is more serious, especially in men who have lain out a long time and suffered during transport. A spreading gaseous cellulitis develops which rapidly extends the whole length of the limb to the trunk. The parts above and below become rapidly involved by a soft doughy edema first evident along the line of the main lymphatic trunks, and spreading eventually through the entire thickness of the limb. The tissues are often crepitant, and a dark reddish dis-

coloration appears over the dependent parts. Meanwhile abundant sanious pus and bubbles of very stinking gas escape from the wound itself. The white tense limb with marbling on the surface characteristic of infections with bacillus aerogenes capsulatus I have not seen. The bacteriology of these wounds is now being worked out. The resulting gangrene is difficult to treat by amputation, as the flaps rapidly assume the condition of the gangrenous part removed. When temporised with the gangrene shows a tendency to localize itself, mummification commences, and if free enough exit for the discharge can be provided a chance of a later operation is gained. Gangrene of this character is responsible for a very considerable mortality.

Tetanus: Prophylactic Use of Serum.

A very serious complication of wounds is the development of acute tetanus, running a very rapid course, but not marked by very severe spasms. This as a rule develops during the first week after the reception of the wound, but sometimes as late as the tenth or fifteenth day. The initial source of infection is to be traced to the soil; it has been suggested that the trucks forming the ambulance trains and straw used for bedding down the patients might be responsible, but for this no evidence exists, and many patients have developed the disease prior to transport. The scourge is affecting the armies of the Allies and Germany in equal degree of severity. An attempt to control its development by the administration of prophylactic doses of serum to all patients with severe open wounds as soon as they are brought in from the field is now being made.

There is no doubt that these complications are the direct result of difficulties of collection and transport of wounded attendant upon the military conditions under which fighting is now taking place. Many of the patients lie in the trenches until the darkness of night allows of their removal; their clothes are infiltrated with mud, while the same shell which has caused the wound often brings down the side of the trench and the injured limb may be covered with soil. Again, the fragment of shell itself is commonly fouled with soil. Abundant opportunity thus exists for a primary infection of the wound of a

very gross nature by the organisms of the soil. One has only to look over the neighboring fields to appreciate the amount of manure with which the soil is treated, since the agriculturists are now placing the manure on the fields behind the fighting line prior to ploughing it in. One may well look back with envy to the clean soil of the South African veldt, much as the dust was then regarded as a bugbear.

Wounds of Head, Face and Other Parts.

A large majority of the wounds of the head are the result of injuries caused by shrapnel balls. The German shrapnel is a little smaller in calibre than our own, and cast of lead apparently hardened by some alloy; the tangential wounds are often wide grooves in the scalp with considerable comminution of the bones. When striking directly the ball rarely passes deeply, often lying on the dura, or if it perforate the latter not passing deeply into the brain. Some of the tangential wounds are accompanied by very extensive brain laceration. The fact that most of the wounds are infected before the patients reach the hospital renders them unfavorable cases to deal with at once, but the local conditions as a rule rapidly improve, and then later operations can be undertaken. Wounds of the face and jaws are very common, also extensive injuries of the palate. Shrapnel balls pass through the cheek by comparatively small openings, often of the slit form, while the alveolus or palate may be widely damaged. No special features are presented by the chest injuries, beyond the fact that they are generally more severe than those seen in South Africa, and I think the association of spinal complications without evidence of the ball having actually traversed the vertebral column is more common. A small proportion of perforating wounds of the abdomen which have been accompanied by no untoward symptoms are seen in most of the hospitals. In all these cases the injury has been caused by rifle bullets. Shell wounds of the sacral region are not uncommon and are very distressing; in some the spinal canal is laid open, others are complicated by incontinence of feces. It is a suggestive fact that few similar injuries of the anterior wall of the abdomen come into hospital,

although an occasional lacerated wound with hernia of the omentum has been seen.

The rarity of division of individual nerves and large blood-vessels has been already remarked upon. After passing through more than a dozen large hospitals I have only seen two false aneurysms, one an arterial hematoma of the femoral, and one arterio-venous injury of the posterior tibial vessels. Fractures are numerous and severe, accompanied by large wounds and much comminution, while injuries to the joints are of a gross nature and almost without exception complicated by fracture of the articular ends of the bones.

Transport Difficulties.

The difficulties attendant on the transport and treatment of the very large number of wounded have been in themselves immense, and have been further enormously aggravated by the complications dependent on the early backward movement of the troops. Happily the period of more leisurely advance has allowed the establishment of a large number of hospitals in suitable positions, and the heavy task which has devolved upon the medical service of the army is in some measure eased. The problem has been faced with energy and devotion by all concerned, and unfortunately death has exacted a heavy toll on the medical officers employed with the advanced troops.—*The Lancet.*

ACADEMY OF MEDICINE, TORONTO

The Council of the Academy is anxious to direct the attention of the Fellows to the excellent Programmes of the Academy and its various sections, presented by the Programme Committee for December.

Will the Fellows recall that they are privileged to attend *all* sections and take part in the discussions as well as present papers and clinical cases. The Chairmen of sections hope that each Fellow will take upon himself to inform them of any interesting contribution he may be able to make.

The Library is open from 9 a.m. to 6 p.m. daily, and from 8.30 p.m. to 10.30 p.m. on nights of meeting in the Academy. Will the Fellows kindly register each time the Library is visited.

The Library Committee will be pleased to receive from Fellows recommendations for books, pamphlets or journals to be added to the files. Cards for this purpose may be had from the Librarian.

The plans for the proposed new building are on exhibition in the Council Room. Will each Fellow personally inspect them and make criticism. It is the desire of the Council to have a building perfect in every way for the purposes of the Academy.

As the Academy is a representative body of the profession in Toronto, the Council hope that each Fellow will make an effort to see that his friends in practice are likewise members of the Academy. The membership is now over four hundred, but there are still men in the city eligible for Fellowship, particularly among the younger men.

CANADIAN SURGEONS WHO ARE NOW F.A.C.S.

The following Canadian doctors received the degree of F.A.C.S. at the recent convocation of the American College of Surgeons in Washington, D.C.:

Alberta:—Robert George Brett, Banff; L. Stewart McKidd, Calgary.

British Columbia:—Wm. H. K. Anderson, Fernie; Frank Wm. Green, Cranbrook; Edward Charles Hart, Victoria; Wm. John Knox, Kelowna; Henry R. Storrs, Vancouver.

Manitoba:—Robert D. Fletcher, Winnipeg.

New Brunswick:—George Arthur Addy, St. Johns.

Newfoundland:—John Masson Little, St. Anthony.

Ontario:—Adam T. Shillington, Ottawa; John F. Uren, Toronto; George S. Ryerson, Toronto; Walter P. McKeown, Toronto.

Prince Edward Island:—Stephen R. Jenkins, Charlottetown.

Quebec:—Robert H. Craig, Montreal; Walter H. P. Hill, Montreal; George W. L. Hume, Sherbrooke.

Saskatchewan:—Andrew Croll, Saskatoon; George R. Peterson, Saskatoon.

THE ONTARIO COLLEGE OF PHYSICIANS AND SURGEONS ELECTIONS

The following are the only changes in the personnel of the Council of the College of Physicians and Surgeons of Ontario, the elections having taken place on December 1st:

Division No. 2—Dr. G. M. Brodie, Woodstock.

Division No. 5—Dr. J. J. Walters, Berlin.

Division No. 8—Dr. E. T. Kellam, Niagara Falls.

Division No. 9—Dr. R. H. Arthurs, Sudbury.

Division No. 12—Dr. H. J. Hamilton, Toronto.

Division No. 13—Dr. F. A. Dales, Stouffville.

Division No. 15—Dr. T. S. Farncomb, Trenton.

Division No. 18—Dr. J. F. Argue, Ottawa.

The Physician's Library

Collected Papers by the Staff of St. Mary's Hospital, Mayo Clinic. Philadelphia: W. B. Saunders Company. 1913.

This year's volume from the Mayo Clinic is comprised of no less than seventy-eight papers, containing work on the alimentary canal, uro-genital organs, thyroid gland, and many of a more general character.

Having the benefit of seeing very large series of cases, the staff of the Mayo Clinic are most advantageously placed to set standards for the uniform classification of the clinical signs and pathological findings of many conditions. MacCarty has taken this opportunity in his article on the breast, in which he appeals to " the pathologist and clinician to accept a simple biologic conception of epithelial activities in the terms of primary, secondary and tertiary hyperplasia, rather than to attempt a scientific grouping of cases according to an unscientific and chaotic nomenclature." Again, in estimating the degrees of various signs and symptoms, Plummer has introduced the system of mathematical estimation, e.g., obstruction at the pylorus to the third or fourth degree, instead of using the terms " marked," " considerable," etc., which have only a relative meaning. After studying so many cases and specimens of thyroid gland, their claim that there is " a constant relative association of increased secretion and increased absorption from the thyroid proportional to the degree of toxicity on the part of the patient," should receive the fullest consideration in the controversy on this moot question.

One might continue quoting opinions such as the above from many other articles, but these few may be sufficient to persuade the profession that any time devoted to the perusal of this book will be well spent. The output from the pathological and experi-

mental laboratories is greater than in previous years, and will no doubt be still larger in the volumes of the future.

Physicians as well as surgeons will be well rewarded by reading these monographs from the Mayo Clinic, most of them being of a clinical and diagnostic character, rather than a purely technical one and of interest to the latter only.

The Practical Medicine Series. Vol. IV, Gynecology. By E. C. Dudley, M.D., and H. M. Stowe, M.D. Series 1914. Chicago: The Year-book Publishers. Price, $1.35.

This little volume gives in very succinct form all the newer advances in this science. Everything from the vaccines and blood tests to the last gynecological instruments are reviewed, and when the editors do not agree with the authors regarding any statement they say so. The book is almost an authority, therefore, on the newer points in the advancement of the science of gynecology, and is of great value to the specialist and the general practitioner alike. It is well bound and neatly printed and paragraphed. A. C. H.

A Textbook of Medical Diagnosis. By James M. Anders, M.D., Ph.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College of Philadelphia; Officier de L'Instruction Publique, etc.; and L. Napoleon Boston, A.M., M.D., Professor of Physical Diagnosis, Medico-Churgical College; Physician to the Philadelphia General Hospital; Pathologist to the Frankford Hospital. Second edition, thoroughly revised, with 500 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company. 1914.

We had the pleasure of reviewing but a year or two ago the first edition of Anders' and Boston's "Textbook of Medical Diagnosis," and had occasion then to compliment the authors upon their work. The volume now appears after being thoroughly revised. It is certainly a very imposing looking work,

and contains five hundred illustrations, some of them in colors. There is no department in the whole range of medicine that must be kept quite as up-to-date as that of diagnosis, on account of the present-day clinical and laboratory methods used. We remember but a few short years ago when a practitioner had to make his diagnosis without any such assistance whatever. Now, however, such is not the case, and a physician who expects to be successful must fall back upon more modern and certain methods in order to know just what pathological condition he has to deal with. We know of no better work on diagnosis than this one, and recommend it with confidence.

A Treatise on Clinical Medicine. By William Hanna Thomson, M.D., LL.D., formerly Professor of Practice of Medicine and of Diseases of the Nervous System in the New York University Medical College; ex-President of the New York Academy of Medicine, etc. Octavo volume of 667 pages. Philadelphia and London: W. B. Saunders Company. 1914. Cloth, $5.00; half morocco, $6.50. Sole Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

This work is one of use not so much to the undergraduate as to the physician in active practice. It is not systematic, and not of very high literary merit. It is palpably the work of an elderly physician, of great experience, sound common sense and judgment, and open-minded, in a degree rare in such men, to the advances which began in modern medicine after he had been thirty years or more in practice. Of course he is not facile in his handling of laboratory subjects. How should he be? And why should he be? He has to offer what is really better—evident clinical acumen and judgment and skill in the use of tried measures of treatment. The book is entirely personal. The first personal element abounds in it, and the physician of experience will be charmed with it, just for its usefulness, if one wishes to look up in it the settled opinions, upon the ordinary "mill-run" of cases in weekly practice, of a wise old practitioner.

J. T. F.

A Reference Handbook of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine and Allied Science. By various writers. First and second editions edited by ALBERT H. BUCK, M.D. Third edition, completely revised and rewritten. Edited by THOMAS LATHROP STEDMAN, A.M., M.D. Complete in eight volumes. Volume Four. Illustrated by numerous chromolithographs and 977 halftone and wood engravings. New York: William Wood & Company. 1914.

We feel that we will not be exaggerating in stating that volume four of the third edition of this colossal work is the best yet. It takes in practically every medical subject of any importance from the letters EMB to the letters HAY, and is illustrated with almost one thousand halftone and wood engravings. There are three Canadians among the contributors—Drs. Frederick G. Finley and Albert G. Nichols, of Montreal, and H. B. Small, of Ottawa. In addition to those gentlemen, the names of nearly seventy-five of the most prominent medical writers appear, many of them quite well known to the Canadian profession. The "Reference Handbook of the Medical Sciences" is nothing short of a complete medical encyclopedia, some of the articles filling several pages, each one written by one who is a specialist on that particular subject. We again extend congratulations to Dr. Thomas Lathrop Stedman on his splendid achievement as editor, and to the publishers, who have spared no expense to turn out a work that has but few peers in American medical literature.

Anatomy and Physiology. By ELIZABETH BUNDY. A textbook for training schools. Third edition. P. Blakiston Son Co., Ltd., Philadelphia.

It has been the purpose of the author to present in one volume the essentials of Anatomy and Physiology necessary for the requirements of a trained nurse. Considering the immensity of each of these branches of the study of medicine, it is evident that the task has not been an easy one. The subject-

matter, however, is offered in a clear and concise manner, and the combination of the two subjects has been well worked out. The book contains four hundred pages, is well illustrated and is very readable. J. E. E.

Die Heilwirkung des Radiums. Nach einem Vortrage, gehalten vor der Roentgen Society in London. Von Dr. Siegm. Saubermann, Berlin-Vienna. To be had by applying to Radium Limited, U.S.A., 25 W. 45th St., New York City.

This pamphlet, consisting of 40 pages, with 36 illustrations, is the latest publication on the subject of Radium Emanation Therapy. It is of the greatest importance and interest to the physician desirous of using radium emanation in treating those diseases which it influences, on account of its thorough but still concise discussion.

The 36 illustrations contained are, in all probability, the first of their kind ever shown in this country, and demonstrate clearly the effects of the rays and emanation of radium.

The Narcotic Drug Diseases and Allied Ailments. By Geo. Petty, M.D., Memphis, Tenn. Philadelphia: F. A. Davis & Co.

The opinion of the author for those addicted to narcotic drugs is expressed very sympathetically in the words with which he dedicates his book, viz.: "To the man who is helpless yet hopes, who longs for freedom, who strives against odds unequal, whilst no one seems to see, or care, to help, this book is offered as a ground for hope, a rift in the clouds, a helping hand." Dr. Petty's book is evidently founded on his great experience in the subject, gained by years of careful studying of the numerous cases with which he has come in contact. His methods of treatment are founded on his study of the etiology and pathology of the disease. We note that Dr. Petty is an advocate of the rapid withdrawal of the narcotic, but not until the toxines already formed in the system have been thoroughly eliminated. For the after-suffering he uses scopolamint. Of course his method is

open to criticism of the advocates of other methods, but Dr. Petty gives ground for his advocacy of his method. He is also as emphatic in the condemnation of the slow withdrawal, a method approved of by many eminent authors.

Altogether the book is well gotten up and will act in an advisory capacity to the busy general practitioner, who, in most cases, underestimates the seriousness of the condition. Alcoholism and the treatment of acute disease in a narcotic habitue is also thoroughly discussed.

Infant Feeding. By CLIFFORD G. GRULEE, A.M., M.D., Assistant Professor of Pediatrics at Rush Medical College, Chief of Pediatric Staff, Cook County Hospital. Second Edition, thoroughly revised. Octavo of 314 pages, illustrated. Cloth, $3.00 net. Philadelphia and London: W. B. Saunders Company, 1914; Toronto: The J. F. Hartz Co., Ltd., sole Canadian Agents.

For the information of those who are not familiar with the first edition of this small volume, we might state that it was based on a course of lectures given to the students of Rush Medical College for the past three years, and it was partly due to the demand of these students that the treatise was written. With the exception of the embodying of a few scientific data gathered since the appearance of the former edition, the text remains practically unaltered in this one. It contains many good hints based on sound principles which ought to be very useful to the pediatrist and general practitioner at this particular season. Many will find the book an admirable guide to the feeding of infants.

W. H. P.

Hypertrophy of the Prostate. By W. J. MACDONALD, M.D., St. Catharines, Ontario. 142 pages; 5 full-page case plates, with descriptive letter-press. Price, $2.00. Toronto: D. T. McAnish & Co.

Contributions to medical literature by Canadian physicians or surgeons have in the past mainly taken the form of papers before societies or of journal articles.

In the making of books no large part has fallen to their share. From this it follows naturally when one whom we claim as our own has a complete volume appear over his signature we are anxious that it should bring credit to its author and incidentally to his associates in practice.

Dr. Macdonald has be enan earnest worker since his student days. He took a creditable part with the Canadian contingent in the war in South Africa, and has built up a more than local reputation as a surgeon since he went to St. Catharines.

His book is the outcome of much discriminating reading and of wide personal experience.

Its scope will be understood when a glance is taken at its table of contents. The history of the evolution of present-day treatment of prastatic disease is first outlined: then follows a description of the surgical anatomy of the part, of its pathology, of its symptomatology, and the diagnosis of its diseases, of its non-surgical and its surgical treatment; lastly, the complications and the after treatment of surgical operations undertaken for the relief of such disease are given full consideration.

The text is well and clearly written, and the author's conclusions, in the main. are sound and logical. The writer of this notice, recalling the old maxim, "Palmam qui meruit ferat," cannot easily understand why Belfield, of Chicago, is ignored in regard to an operation which liss beyond possible doubt, originated and which Freyes appropriated.

In the next edition. which surely will be called for, this matter should be set right for the credit of that fair play which is an honor to British surgery. N. A. P.

The Simpler Natural Bases. By George Barger, M.A., D.Sc., Formerly Fellow of King's College, Cambridge, Professor of Chemistry in the Royal Holloway College, University of London. Longmans, Green and Co., 39 Paternoster Row, London; New York, Bombay and Calcutta. 1914.

Biochemistry or Physiological Chemistry is becoming of such great importance to the proper diagnosis of disease that an attempt is being made by the author to place this branch of

science in a position that will be most readily accessible to students of medicine. These monographs contain the most recent bibliography on the subject. The Editors have endeavored to keep two objects in view: Firstly, that each author should be himself working on the subject with which he deals, and, secondly, that a bibliography as complete as possible should be included.

The Practical Medicine Series. Comprising ten volumes on the Year's Progress in Medicine and Surgery. Under the general editorial charge of Chas. L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Roger T. Vaughan, Ph.B., M.D. Vol. III. The Eye, Ear, Nose and Throat. Edited by Casey A. Wood, C.M., M.D., D.C.L., Albert H. Andrews, M.D., Wm. L. Ballenger, M.D. Series 1914. The Year Book Publishers, 327 S. LaSalle St.

This small book is one many practitioners look for from year to year, as it has hitherto contained a very concise summary of the year's ophthalmic and otolaryngological literature. The present volume is no exception so long as one refers to United States authors. Foreign literature is barely touched upon. Especially is this so in the ear and throat sections. Eight pages of the ophthalmological section are devoted to illustrations that are hardly in place in such a book, excellent and interesting as they undoubtedly are. The book is very nicely arranged and will be found both profitable and interesting to specialists and general practitioners. P. G. G.

AN IDEAL RESORT FOR CONVALESCENT PATIENTS

PHYSICIANS have frequent opportunities of referring those convalescing from illness to a resort where they can quickly recover their old-time vigor and enjoy an almost ideal climate, 2,500 feet above sea level. Such a resort is Virginia Hot Springs, just one night out of New York. The management have spent a huge sum of money on this choice spot in "Old Virginny," and are anxious that the Canadian medical profession should continue to refer cases there, as they have done in years gone by. The Homestead Hotel is one of the handsomest houses in America. It is built of solid brick, containing 500 guest rooms, with many parlor suites and 300 private baths. It is spacious, dignified, quiet and restful, with magnificent mountain views on every side. It is no exaggeration to say that Hot Springs means the Homestead Hotel. The Company owns 5,000 acres surrounding the hotel, so that physicians can understand that their patients have every opportunity of enjoying outdoor life and regaining thereby their normal strength.

The dominant factor making Hot Springs world-famous is the cure in which the climate as well as the water assist. The waters are conducted by gravity to the bathhouse and distributed fresh from the ground to the bathing apartments on different floors without loss of heat or its increase by artificial means, and fully charged with all their gases and other health-giving qualities. At none of the celebrated places in Europe, and at no other springs in America, is the temperature prescribed for hot baths that at which the water actually emerges from the earth in the natural springs.

The springs are beneficial, not only for bathing, but for drinking. Besides the hot springs, the effects of which as drinking waters are pronounced, there are magnesia, sulphur, and soda springs within the grounds, and alum water from a spring not far distant. The water from the soda spring comes strong and clear from the ground at a uniform temperature of 74 degrees. Physicians should address for full information H. Albert, Esq., Hot Springs, Va., U.S

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Editorials

TO WHAT END IS LABORATORY TRAINING IN TORONTO?

In his Presidential Address before the Academy of Medicine, Dr. H. B. Anderson called attention to the need of laboratory accommodation in connection with our Medical Clinics, and made some pertinent observations with reference thereto.

The matter is one to which everyone interested in the progress of clinical medicine should give careful consideration.

The study of Internal Medicine and its arrangement in our hospitals has passed through several evolutionary periods, from the time when one man held appointments on probably two or three hospitals in the city, to the present with our service arrangements. This service arrangement, with its limitation of each appointee to one general hospital is an excellent one, but we wish to make the observation that the system as operative in Toronto has not become fully rounded out, the deficiency showing itself on the laboratory side of the clinic. Now, before conditions become

too fixed by custom or precedent, is the time to act in this connection and establish clinical laboratories worthy of the name.

As Dr. Anderson remarked, "It is quite unnecessary to urge the essential importance of laboratory work for investigation, diagnosis and treatment." Very true, and yet the very obvious needs emphasis—since no serious attempt has been made to meet the constantly recurring demands of ward cases in the way of investigation along laboratory lines.

Routine laboratory examinations are made in our hospitals by house physicians under various arrangements. Beyond this, a chemical problem is referred to the department of pathological chemistry—which finds such work or problems disjointed and fragmentary, and the staff being already busy with their own investigations, the hospital material does not interest or receive the attention it should.

During his student days the medical man of the future is taught that estimations of total nitrogen and other quantitative examinations of urine have an essential and practical relationship to his clinical problems. After graduating and spending twelve or eighteen months in a hospital, he secures a position upon the medical clinic. With the enthusiasm of inexperience, and little private practice, he hopes to work along some lines of investigation of clinical cases under the direction of some senior on the staff.

A case of arthritis presents itself and he essays some work upon it, with an idea of investigating the bacterial flora of the reddened tonsils, probably com-

bined with cultures from the blood and swollen joints. But he is first surprised at the lack of interest manifested by his seniors on the service, who perhaps have had no experience with this sort of work. Next, he discovers that little or no facilities are provided for clinical men working out their own cases along such lines.

Fevers of the typhoid type, early pneumonias, or other infective processes are likewise presented for his study, but again no facilities beyond those required for the purely clinical or merest routine laboratory examination are afforded. The routine investigation of neurological tissue is entirely beyond any present possibilities.

He reads of Rosenow's remarkably interesting work, but is cautioned that this is in realms beyond his power or capacity—fields for laboratory men alone. And so the cases go without any real investigations worthy of the name. Pyorrhea, cardiac disease, joint rheumatism, nephritis, and a great variety of conditions which lend themselves splendidly to investigation along systematic lines, all are closed to him, and he is forced to the conclusion that such methods of study are not applied, or if at all, only in a disjointed way, on isolated cases, by departments not brought into close touch with the cases.

Nowhere is better clinical material to be had than here, nor are physicians in Toronto of deficient brain power or capacity for such investigating work—merely the facilities are lacking. Why is Toronto so little known or heard of along these lines in the

important medical centres of the United States? Simply because such work has never been possible owing to lack of facilities and hence of laboratory trained clinical men.

The opening of our magnificent new hospital was expected to mark the beginning of a new era, when Toronto would take her place in line with progressive ideas as understood elsewhere.

It is not added stimulus or uplift that is wanted, but merely facilities under the control of trained clinical investigators; that alone will free the medical clinic of its blight and hold out something beyond dull routine to its members.

Laboratory facilities were secured for the department of gynecology in the Toronto General Hospital, where formerly there were none. What has been obtained for this department may be obtained for that of medicine, if only similar influences are exerted and if our university authorities are in the future careful to avoid discrimination against other clinical departments.

IN AID OF THE MEDICAL PROFESSION IN BELGIUM

In last month's issue we alluded to an effort now being made by the profession throughout the United States to lessen the suffering that is all too prevalent among the doctors of plucky little Belgium. Since then, and acting upon the suggestion of the chairman of a committee recently formed in England (Sir Rickman Godlee, F.R.C.S.), a Canadian Central Execu-

tive Committee has been formed with the same most worthy object in view. This committee is exceedingly comprehensive in personnel, and consists of the Presidents of our Dominion, Provincial, County and Local Medical Societies, Deans of our Medical Colleges, representatives from our different hospitals, the President of the Ontario College of Pharmacy, President of the Ontario College of Physicians and Surgeons, the editors of the different medical journals and others. We print on another page of this issue the committee's appeal, an article by Professor Jacobs, explaining in detail the actual condition in Belgium and a letter which recently appeared in *The Lancet* from the committee of which Sir Rickman J. Godlee is Chairman.

The entire Canadian profession deplore sincerely the awful suffering now being endured by their confreres in Belgium. The latest and most reliable information goes to show that a very large percentage of them have been left absolutely homeless, and in many cases without even the wherewithal to buy food for their families, or drugs and other necessaries for their patients. Their condition is nothing short of pitiful, and we are certain that the appeal now being made by the Canadian Committee will meet with a hearty and prompt response.

Some little idea of the real condition of affairs in this part of Europe may be gathered by our sitting down and trying to realize that a similar condition prevails in many cities and towns in Belgium as would exist if Toronto had been shelled from Lake

Ontario, and every building and house, large and small, from Front to Dupont Sts., and from the Woodbine to the Humber Bay left in ruins, with the inhabitants living, as best they could, in the open, and existing on roots and grain.

Let everyone act promptly and contribute at once, or intimate his intention of so doing.

REORGANIZATION OF THE MEDICAL COUNCIL

From time to time this journal has urged the reorganization of the Council of the College of Physicians and Surgeons of Ontario. Three years ago the Council decided to lop off some of its members, but the dread act was, on one pretext or another, postponed. Unless some excuse can again be found, the Council will, at the approaching session of the Ontario Parliament, apply for the necessary legislation. We learn from the Announcement for 1914-15 (pp. 155, 156, 157, 158), the details of the proposed changes which the Legislative Committee was instructed to bring before the Government. Each university having a Teaching Faculty in Medicine is to have one representative, thus eliminating the representation of Victoria University, of Trinity University, and of Ottawa College.

The Territorial representation is to have, as a basis, a medical population of three hundred, Toronto getting two representatives—ten in all, as opposed to the former eighteen—while the Homeopathic rep-

resentatives are to be cut down from five to two. The Council would appear to be unduly generous to the fast disappearing Homeopaths, of whom there are not fifty in the entire Province.

During the coming session of the House, we shall watch with some interest the action of the Legislative Committee, and shall gladly aid in any action which may render the Medical Council more manageable and amenable to professional opinion.

HUSH! MUM'S THE WORD!

At its special meeting in December the Ontario Medical Council declared itself in favor of medical reciprocity with Great Britain and Ireland, on the basis of Register for Register, e.g., any one on the British register is qualified for Ontario registration and vice versa.

The Ontario Medical Council has again stultified itself, under the compulsion, some think, of Toronto University, Queen's University and the editorials in *The Globe*. It has been stated to us during the past few weeks more than once that, if there is any action prejudicial to the interests of the public and profession, the Ontario Medical Council can always be relied upon to take that action. The Territorial Representatives pulled the chestnut out of the fire while the University Representatives merely chuckled and patted them on the back.

In Great Britain and Ireland there are more than twenty medical bodies which have licensing power.

Twenty licensing bodies, *twenty different standards!* any one of which is registrable in Great Britain—and henceforth, thanks to the kind efforts of our Council, is registrable in Ontario.

The Toronto *Globe* has told us that the lowest of these twenty odd qualifications is higher than any in Canada. The medical faculty of the University of Toronto and that of Queen's University endorse the statement.

God forbid that we should doubt the *Globe,* let alone the Illuminati of those modest and self-abasing universities. The Medical Council of Great Britain has evidently had some doubts as to the standard of some of its Licensing Bodies, but, as it has not read the editorials of the *Globe,* it may be forgiven. We ourselves have had some doubts; but, until we have secured the permission of of the *Globe* and of the universities, we shall follow the example of the Ontario Medical Council—stultify ourselves.

The L. A. H., of Dublin, is a qualification to practice medicine registrable in Great Britain and Ireland. The following is the recommendation *carried* in the General Medical Council of Great Britain on November 25th, 1914:

"That the General Council take into consideration the question of representing to His Majesty's Most Honourable Privy Council that the course of study and examinations, to be gone through in order to obtain the qualification of Licentiate of the Apothecaries Hall of Ireland, are not such as to secure the possession by persons obtaining that qualification of

the requisite knowledge and skill for the efficient practice of their profession."

This qualification the Ontario Medical Council proposes to register. Hush! for goodness sake, do not let the English Council hear the *Globe's* statement that this qualification is higher than any in Canada, or we may not get reciprocity with Great Britain after all.

Picture to yourself the desolation of all that multitude of young Ontario doctors gathered in line at the Registrar's door in London—who, because of the *Globe,* may never get a chance to locate on the free and fat lands of Great Britain.

Hush! Mum's the Word!

Canadian Journal of Medicine and Surgery

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Original Contributions

DIAGNOSIS, SYMPTOMATOLOGY AND PATHOLOGY OF POLIOMYELITIS ANTERIOR ACUTA*

BY R. G. ARMOUR, M.B., TORONTO.

Poliomyelitis Anterior Acuta must be regarded primarily as a generalized infection. Post-mortem we find, in addition to changes in the central nervous system, an enlargement of Peyer's patches in the intestine, different degrees of liver splenic and kidney involvement.

Clinically the disease practically always sets in with gastro-intestinal disturbances, loss of appetite, with or without vomiting, and obstinate constipation or diarrhea. Suppression of urine is common, and the kidneys may show an intense nephritis, where there may have been very little involvement of the nervous system.

The mode of onset, then, will usually be almost indistinguishable from the usual indispositions from which children so commonly suffer, particularly at the same time of year in which poliomyelitis is most prevalent. After twelve hours to several days, paralysis of one or more limbs will be discovered, just at the time when it is thought the child may leave his bed.

If, however, before the paralysis has appeared, the child be carefully examined, he may be found to resent handling more than usual. Manipulation of the limbs, pressure on the muscles, movements of the joints may appear to give pain. Those signs which bring out pain in meningitis, such as flexing the thigh on the body with the leg extended, or drawing the the head forward, bring out cries of pain. Girdle pains may also be present.

* Delivered at the Academy of Medicine, Toronto, December 1, 1914.

The explanation of these phenomena may be found in the pathology of the condition.

Having attacked the nervous system, the virus does not confine itself to the anterior horns alone, but is seen to have affected the blood-vessels throughout the nervous system in the brain, cord, and their meninges. If, then, a considerable amount of congestion, infiltration and oedema take place in the vessels of the meninges, pain will be a correspondingly severe symptom.

This point is the most important one in the early diagnosis of the disease.

The temperature may be slightly or much raised. The blood count can give little assistance. The white count rarely approaches 20,000, with a slight relative increase in the polymorphonuclear neutrophiles. The examination of the cerebrospinal fluid, from which much might be expected, gives disappointing results. In the pre-paralytic stage it frequently shows an excess of globulin and many cells, but these disappear so rapidly that it is doubtful whether, in view of the intense congestion of the cord, any reduction of the pressure of the fluid surrounding it is justifiable on the chance of finding these.

The varying degree of involvement of the nervous system by the virus of this disease naturally causes a diversity of symptoms and forms of the disease, which may be considered together before going further into the diagnosis and symptomatology.

The classifications which have been suggested are based on anatomical and symptomatological grounds, and may be best appreciated by a further study of the pathology of the disease.

Whatever may be the point of entry of the virus into the body, whether it be the naso-pharynx or bowel, or both, it probably travels throughout the body by means of the lymph stream.

I have referred before to the enlargement of the Peyer's patches in the intestine. The mesenteric lymph glands are also found enlarged, showing a reaction to the presence in them of the virus. Experimentally, when the disease has been produced by inoculating a rabbit over the sciatic nerve, the paralysis does not show itself throughout the whole central nervous

system, as might be expected if the virus were being distributed by the blood stream, but may appear first in the lumbar region, as being the first place where it has lodged after its passage up the lymphatics about the nerve. Or, again, it may show itself in the region of the cervical enlargement, as if it had not caused a plugging of, or effected an escape from the lymphatics until reaching this level.

Undoubtedly, though the virus may travel throughout the whole body and produce changes in all the organs of the body, it nevertheless exerts its greatest effect in the central nervous system. It is not altogether established that it acts directly on the nervous tissue, while there is good reason to think that it acts chiefly on the walls of the blood-vessels or upon the lymphatics surrounding them. The changes produced consist, in the milder grades, in a congestion of the vessels of the cord and meninges. Not only in the anterior horns of the cord, but also to a marked extent in the anterior median fissure through which the anterior spinal artery enters, in the grey matter of the posterior horn, in the white matter of the cord and even at times in the posterior ganglia. The endothelium of the vessel wall may appear swollen, oedema takes place about the vessel, or in many areas a round-celled infiltration. About some vessels will be found red blood-cells in varying quantities from a few up to a large number, suggesting rupture of the vessel walls and subsequent hemorrhage.

The changes in the nervous elements consist in the usual changes found in acute diseases of the nervous system, more or less chromatolysis in the nerve cells, displacement of the nucleus, and occasional neurophagi attached to the cell. There is also a rapid increase in the neuroglia which may later break down and leave a cavity.

If, then, the condition is to such an extent a perivascular disease, why has it earned the name of Anterior Poliomyelitis? The explanation of this is to be found, I think, in the arrangement of the circulation of the cord. This consists in one anterior spinal, and two posterior spinal, and in addition a small radicular branch running into the cord at the point of emergence of each root. These vessels are distributed mainly to the

grey matter, so that, Adamkrievitch says, the grey matter of an injected cord looks, under the microscope, like a frog's lung, while the white matter shows only an occasional small vessel here and there.

Now, if a sudden and intense congestion, with edema, infiltration, and escape of blood takes place, it will assuredly do most damage to the surrounding nervous tissue where the vessels are most numerous. On studying the circulation of the grey matter more closely, it is found that the vessels are most numerous where there are most nerve cells, and that brings in to the anterior horns, and more especially in the cervical and lumbar enlargements.

Of course, as in other parts of the body, one vessel or collection of vessels may be affected more severely than another. If this occur in the anterior horn we have a flaccid paralysis with loss of reflexes at once, quickly followed in three or four days by the reaction of degeneration and atrophy. If the vessels be not severely damaged this may be modified until only a part of the muscle is paralysed, or the paralysis may be only transitory.

If the changes predominate in the meninges pain may be a prominent feature, with rigidity, and so on. This type has been called the meningeal form. A neuritic form has been described in which there is a considerable amount of tenderness over the peripheral nerves and some sensory disturbance. It is to be doubted whether the disease has really attacked the peripheral nervous system, or whether it has not simply extended down the sleeve of pia-arachnoid that is reflected along the posterior root.

Again the changes may be marked in the posterior columns, causing sensory changes. They may take place in the spino-cerebellar tract, or in the cerebellum itself, causing the cerebellar type, characterized by ataxia. The pyramidal tract may be involved, causing spastic phenomena lower down. This frequently occurs in the lumbar region, producing spasticity in one leg, and scoliosis due to involvement of the anterior horn at the level concerned with the innervation of the lumbar muscles.

Lesions may occur in the pons or medulla, causing cranial nerve palsies, and frequently causing death from involvement of the vital centres.

A type frequently very difficult to diagnose is the cerebral type. In this type we have added to the gastro-intestinal disturbance a coma of greater or less intensity, to which may be added convulsions. At first the shock of the encephalitis may cause a flaccid paralysis, and this in turn give rise to an upper motor neurone paralysis of one side or both.

Other types of the disease too unusual to enter into fully in a paper of this length are that type resembling Landry's paralysis, where one level is affected after another at periods of several days, each progression being marked by another onset of fever, and another type not yet proved to be poliomyelitis, namely Oppenheim's disease, or Amyotonia Congenita. It has been suggested that this disease may be poliomyelitis in utero.

Bearing in mind the pathology of this disease, and examining each case of gastro-intestinal disturbance in children for paralyses, or if they have not appeared, for tenderness over muscles, joints and nerves, and seeking for any degree of rigidity of the neck or back will frequently disclose a case of this disease in its earliest form. Without encroaching on the treatment of the condition, I think I may safely say that in the first twenty-four or forty-eight hours we have our only chance of influencing the amount of paraylsis that may ensue.

It is not to be forgotten that adults, at least up to the age of thirty, are susceptible to this disease, and every summer one sees an occasional case.

The differential diagnosis from other conditions lies chiefly in the suddenness of the onset. Rickets may cause tenderness of the joints which forbids their movement. The onset of this disease is never so abrupt as poliomyelitis. There is no true disturbance of the reflexes, and there are the usual signs of rickets.

Post-diphtheritic paralysis may be sudden in onset, but one misses the gastro-intestinal disturbance, at least in the intensity with which it occurs in poliomyelitis. Also at the stage at which it occurs there will probably be no elevation of temperature.

The cerebral type of poliomyelitis, especially when accompanied by a suppression of urine, may be confused with nephritis, but the latter will most probably be less sudden in onset, and the former will probably show some well defined paralysis.

Tuberculous-meningitis is usually slower in onset, may give a history of prodromal headache for some time, should show the presence of tuberculosis elsewhere, and does not often present localized paralysis.

Robert G. Armour.

98 St. George St., Toronto.

THE MEDICAL TREATMENT OF ANTERIOR POLIOMYELITIS *

BY GOLDWIN W. HOWLAND, M.B., M.R.C.P.,
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The medical treatment of this disease is of far greater value and extent than is usually thought, and a great deal of skilful management is required to protect the patient from the extreme conditions which may result from neglect of *proper* treatment.

(1) Prevention of the spread of the disease is the first duty the physician must undertake, and he must mentally associate this infection with others, such as scarlet fever, in order to appreciate the proper procedures to take.

In the first place those in attendance on the patient, and particularly the children in the house, should have routine nasal and pharyngeal irrigation by dilute Peroxide or Menthol 5 per cent., and the value of this procedure is greatly enhanced by the fact that the nasal mucous membrane is one of the main entrances for the germ into the system.

Again, the necessity of disinfecting the stools and urine is evidenced by Flexner's work, in which he showed that the intestinal tract was another source from which infective material could be obtained.

One seldom thinks or practises the necessary isolation in these cases, and a period of three weeks is the wisest period for

* Delivered before The Academy of Medicine, Toronto, Dec. 1st, 1914.

the other children in the house, while the patient should be kept separate for fully six weeks.

(2) *Treatment of Patient.*—The medical treatment divides itself into three periods:

(*a*) When the patient is suffering from the acute infection, considered as one to two weeks.

(*b*) When the patient is in the convalescent stage with recent paralysis. A period to be considered of three weeks.

(*c*) The paralytic stage when we have to deal with the proper care of muscles in various conditions of recovery and atrophy.

You will ask, when does the surgical stage arrive? and to this I reply that surgical treatment starts at any time in the course when conditions arise that the physician is unable to overcome, such as early muscular contractions, etc.; but mainly after there is no further recovery and operative treatment becomes necessary to readjust the surviving muscles to the best advantage.

(*a*) *Treatment of the Acute Infection.*

(1) The disease is a germ infection. Can we by serum treatment either destroy the germ or neutralize its products?

Apparently this is so far not possible, and, on account of the little resistance acquired by a patient, it will probably not be successful.

It has been already tried by inoculating the spinal fluid from a cured case into a recent one, but the success was not appreciable, as far as prevention of paralysis is concerned. On the contrary, preventive inoculation has experimentally been proved to have some value, but it would only be of service in case of epidemics.

If the disease cannot be attacked by this means, is there any drug that will act as a sufficiently strong antiseptic?

The answer here is usually Urotropin, because its secretion occurs into the spinal fluid. Twenty-grain doses are given four times a day, with the proviso that the hematuria produced by it must be carefully watched for.

But while Flexner has shown that Urotropinized animals escape paralysis if infected, yet there is no proof that the drug acts when the infection is premature to the urotropinization, and

recent observers state that they have found no value could be placed on the drug in a series of cases followed for that object.

Having failed to directly influence the germ and its products by these two methods, one must make use of our usual simple treatment by daily purgation and by diuretics and by sweating to remove the toxic products.

During the first period a daily purge is advantageous, particularly when one remembers the infected condition of the intestine, and calomel and salines probably are as good as anything else.

But under sweating we meet with one of the best methods of modern treatment.

Fifteen minutes in a hot bath at 90°-95°, with treatments of from every 2 to every 4 hours, are of value, both in aiding the cutaneous action and also in relieving the pain, which is at times excessive.

It is interesting to note that there is opposition to this hydrotherapeutic measure, and that others advise the use of warmth by flannel and hot-water bags, as better for cutaneous action, especially if sudoretics are used.

Finally, the question of removal of toxine by daily spinal puncture must be referred to, but the value of this procedure seems rather to be beneficial for the relief of pain than for actual toxine drainage.

(2) This is the series of treatments which are directed towards removal of the cause, and one must turn now to the question of treatment directed towards the pathological process in the inflammatory reaction.

One of the more recent methods here is to inject epinephrin 1.5 c.c. of 1-1000 into the spinal fluid with the idea of controlling the vascular congestion in the spinal cord. I do not think that our clinical knowledge of this drug at all encourages this treatment, and the published results are not convincing.

Older methods are the application of ice-bags to the back and head, especially over areas which cover some subjacent focus of the disease; and naturally other physicians prefer the use of heat.

(3) As to symptomatic treatment, one must relieve pain by analgesics, aspirin and salicylates, or by the baths already

referred to, while for other similar conditions the physician will use his judgment and follow the customary methods used in other diseases. With this brief note one can conclude the treatment of the infective period of the disease.

(*b*) The second stage of the disease after the acute infection is over may be termed the convalescent stage.

Our first object here is to raise the resistance and improve the whole metabolism of the child, for this must have a great effect on the ultimate improvement.

Tonic treatment by iron, quinine and strychniæ may at once be begun and the diet arranged to stimulate the desire for food.

On the other hand the greatest attention must now be paid to the muscles which show paresis in various degrees.

Rest is the most absolute necessity and one must condemn the custom so frequently seen, where many physicians in the less severely affected cases urge action and constant use of the weakened limbs.

Daily treatment may now be begun in the form of light massage to the muscles, and this to be followed by the warm bath, in which the child is encouraged to use the paralyzed parts.

But aside from this the plan of rest during the period should be enforced; the spinal cord cells are still in the inflammatory condition.

The final or *Paralytic Stage* begins four or five weeks after the onset, and requires attention in the treatment of the muscles.

The child in the severe cases is still kept at rest for a large period of the day, as exhaustion of the muscles will set the improvement back.

The treatments are continued twice a day, but the massage must be given intelligently.

The usual method of rubbing with the skin oiled is not satisfactory, for the result is mainly cutaneous, but the treatment should be given with dry skin and be rather in the form of gentle kneading and stimulatory movements of the slapping type, and the duration be comparatively short.

Following this the bath, and in this the child must be encouraged to attempt to use paralyzed muscles, and resistance made by the nurse to assist in the development of the weaker. Far better results are attained than by treatment in the bed, and direct cortical action is better than local treatment.

Now I turn to a most important feature, and that is *Splint treatment;* and I must explain the difference between surgical and medical splints.

By the beginning of this period, often before, we have discovered that certain groups of muscles are much more affected than others, and we may feel assured that there are going to be contractions of the stronger over the weaker.

We must not wait for this to occur, but we must early apply the lightest splints possible. I refer you here to Battens. (One of the medical staff of Great Ormond Street Hospital has an article on "Celluloid Splints" in a recent copy of the *British Medical Journal.*)

The medical treatment of splinting is *prevention,* the surgical is *repair.* By carefully avoiding contractions the surgical treatment may never be required, and muscles will recover that otherwise would have shown no improvement until surgical procedure had been attempted. But if you fail to prevent contractions, then I advise early consultation with your surgical *confrère.*

As to electrical treatment, it is questionable if it has any actual benefit to the cells in the cord when applied for that purpose. Of its value to the muscles I have no doubt even if the reactions are unsatisfactory, and I believe that a treatment for a short time is a good proceeding to alternate with the massage if the patient does not offer too strenuous objection. Here one must be most careful not to exhaust the patient's muscles by too prolonged treatment, for cases can be set back by doing so.

Strychnia hypodermically into the muscles is advised at this stage; it does no harm, and may be used, but I question if its value is very great.

This concludes the subject of the present medical treatment of Acute Anterior Poliomyelitis.

When you fail to prevent contractions, or when you have reached a stage where no further power is attainable, and much deformity is likely to occur, it is wise to call on your brother surgeon to enable him to correct the faults you have allowed to occur and to relieve the failures that nature has failed to correct.

Society Proceedings

PROCEEDINGS OF THE ACADEMY OF MEDICINE MEETING, DECEMBER 1, 1914

The discussion of the subject of Anterior Poliomyelitis was opened by a paper on Epidemiology by Prof. Duncan Graham.

The virus is found in the nasal secretions. Outside the body it has been found only in the sweepings of a room in which was an infected animal.

Flexner and Noguchi have grown the virus in vitro and have in culture found globoid bodies in pairs, chains and clumps, 3 to 5 microns in diameter. This culture will produce disease in the monkey and can be recovered and passed on to others. The filtrate will also product disease. It is a filterable virus. Flexner claims to have found a small organism which stains pink with methyl blue stain.

Washings from nasopharynx in Acute Anterior Poliomyelitis have given definite results, the virus has also been recovered from healthy persons, and in recovered cases up to a year after the acute disease has subsided.

Levaditi in a study of the disease in Sweden found evidence of infection of others from a patient in the early acute stage.

One attack produces immunity, and in a community where there has been an epidemic there is rarely a recurrence. A study of the blood of those who have had the disease suggested the presence of immune bodies.

Studies made in Sweden in 1905 by Wickman were the beginnings of our knowledge of the epidemiology of the disease. The disease would seem to be spread by human contact and not by other means, such as flies, domestic animals, food and milk. In those regions visited by the epidemic of 1905 they were not invaded by that of 1912. Reference was made to the various

epidemics occurring in parts of the United States and Canada, and the fact that an epidemic did not recur the following year in any place.

In northern countries the maximum number of cases occur from July to September; in the south, December and January, gradually dying out by spring.

Poor hygienic surroundings do not have any effect—the disease affecting equally rich and poor. In the country more adults are affected than in the cities. This probably due to greater possibilities for infection and immunity in childhood in the city.

Dr. R. G. Armour, in presenting the symptomatology and diagnosis of the disease, referred to the gastric symptoms present at onset, though it is a disease of the nervous system, and pointed out that Peyer's patches were usually involved. The disease spreads rapidly through the nervous system.

Though known as Anterior Poliomyelitis, the changes in the nervous system are not confined to the anterior part of the cord. The membranes are involved and the glia anteriorly at point of entrance of the artery. Changes are also found posteriorly. The more marked changes in the anterior horns is perhaps due to the fact that the blood vessels, anterior, posterior, and radical, pass directly to the grey matter and branch from here to the white matter. The symptoms are most marked, originating in that part of the cord with greatest blood supply.

The various forms have been classified anatomically:

1. Spinal—(a) meningeal, (b) myelitic, (c) neural;
2. Cerebral;
3. Cerebellar—(a) ataxic form, (b) involvement of medulla.

The most interesting type is the cerebral, when the child, after presenting gastric symptoms, becomes rapidly comatose, later waking with definite paralysis.

SOME POINTS IN DIAGNOSIS.

Blood count 12—15,000 whites at most.

Differential may show excess of polymorphonuclears.

Spinal fluid—counts recorded from 0 to a thousand per C.M.M.

These are not constant, vary much in a day or two. Globulin may or may not be in excess.

Cutaneous rashes, such as urticaria, hyperemia, erythema, may be found.

Gastro intestinal disturbances with muscular and joint tenderness, a tenderness over the nerves are the outstanding symptoms of onset.

Medical treatment was discussed by Dr. Goldwin Howland.

As the source of infection is the discharge from the nares, and as this is the point of entrance, antiseptic washes and sprays should be used as routine measure with the patient and those in contact. This measure should be adopted in home and hospital. Isolation should be insisted upon and the child kept from school a sufficient length of time. The stools being infective should receive every care.

Treatment varies in three stages, during (1) acute stage, (2) convalescence, (3) paralysis, and may be approached from point of view of

(*a*) Immunity. The study of immune bodies in the blood so far offers nothing of value, either that of animals or recovered humans.

(*b*) Drug therapy. The surgeons advise Hexamethylentetramin. It is found in the spinal fluid when administered and is theoretically of value as antiseptic, but it appears in such dilution as to be of no value. Flexner found that monkeys treated with urotropin did not develop paralysis when infected, but could show no value in acute cases. It is useful, therefore, as a preventive.

(*c*) Other therapy. (a) Intestinal antiseptics may be useful. Hydrotherapy is advised by some, opposed by others. Lumbar puncture, used daily, lessens pain, but has no other value. (b) Treating the lesions in the cord may be done by application of ice or heat to the cord. Ice relieves pain and meningeal symptoms in some cases. (c) Lumbar puncture with injection of adrenalin has met with some favor. (d) Treating symptoms. Lumbar puncture, ice, drugs to relieve other symptoms.

Convalescent stage. The few weeks following the acute illness tonic treatment is to be given, and continued over a

long period. Iron and quinine are our mainstays. Prolonged rest is essential, the mother being warned against exercise as detrimental in face of the resolving inflammation.

During the stage of paralysis, good nourishment and tonics are necessary. Massage, twice a day, short treatments, are of great help. Deep massage is to be used, and oil lessens the value of the treatment. Ten minutes in the hot bath after massage, encouraging the child to use his limbs, is to be advised. Splints—medical, for prevention, not the surgical for treatment—are of value. They are to be used when weakness will develop and not when development of marked weakness is present, following the treatment adopted by Batten. Electricity, if faradic reaction be present, is of distinct value, but not if pain is produced. He had seen under electrical treatment, the muscle or paralyzed side develop and become larger than the corresponding muscle or healthy side; a very definite proof of the value of electricity when properly applied.

Surgical treatment was introduced by Dr. C. L. Starr.

Preservation and restoration of muscle function may be assisted by massage, carried out by the parent, at first for short periods, gradually lengthened. Improvement is slow and a masseur is rarely retained long enough and the child relapses. It is much more satisfactory in the hands of the parent.

In the upper arm, adduction is to be developed, as deltoid paralysis is the most serious loss of function. Extension of the arm at a right angle is to be advised. In the lower extremity the knee is to be extended to relieve the quadriceps, the loss of whose function is the most serious lesion.

Electricity is often a *dernier ressort* of many of the profession and used without real knowledge. Has it a value if properly employed? Faradic current may be used where reaction persists, likewise galvanic under the same conditions, but the speaker thought that the same time spent on massage would as a rule give better results.

Massage should be continued for a long time, even throughout the whole growing period of a child. Marked flexure contraction at hip requires surgical treatment, and the child should not be allowed to sit up. The recumbent position is

allowable, but the child should be encouraged to play on the floor, lying upon its stomach.

Splints are of great value in relaxing stretched, weak muscle in any part of the extremities. This part of the address was illustrated by a series of special splints to overcome various types of deformity.

Manual stretching, tenotomy, arthrodesis, and tendon transplantation were all discussed in relation to their indications in certain types of deformity.

Anchylosing of the knee is not to be advised. Anchylosis, involving the astragalus is not to be advised before the age of fourteen.

A tendon cannot be transferred to another tendon with any degree of success, but is to be transferred to bone. A small muscle cannot be transferred with the hope of taking place of a larger muscle, nor can one be transferred to take the place of one whose function is diametrically opposed.

Selected Articles

THE POSITION OF BELGIAN DOCTORS AND PHARMACISTS

BY PROFESSOR C. JACOBS,
Of the University of Brussels.

Belgium, a blood-stained and ruined country in the horrors of despair, claims the help of her friends to whom her freely consented sacrifice has brought a ray of hope in the dreadful nightmare of the past three and a half months.

I raise my voice with a feeling of intense pity on behalf of thousands of our weeping brethren in their Calvary of suffering, but it is my pride to carry out this duty to my country. The first impulse of the Belgian medical world is to make an appeal to Great Britain, whose kindness has proved itself in such unbounded measure and with such tact and generosity. The German iron fist has closed upon our country; we have to witness the endless series of crimes that are committed in all our provinces, and we have to abide in silence. All the evils of war have been thrust upon us at the same time—a useless and cruel holocaust of human lives, a decimated, despairing, and starving population, ruined homes, and, far worse than all, our children, the only hope of our country, are being mown down by want and disease.

Our doctors have not been spared; they, too, are bearing a heavy share of the general suffering. And now long weeks, nay months, of trial stand before them, during which they know that they will have to bear a terrible burden. They will have to devote themselves untiringly, giving all their care and time, and even their lives, if need be, to the cause of their country; and yet many of them, victims of a barbarian foe, are homeless, deprived of their laboratories, instruments, and their medical

stores. What will become of those that still remain of our people, threatened as they are by the grim havoc of war and by contagious disease, its constant follower?

In anticipation of these inevitable consequences it has become my duty, as the spokesman of my Belgian colleagues, to appeal to the medical and pharmaceutical world that an impulse of international fraternity may come to the aid of Belgian doctors and pharmacists. Is it realized what we in Belgium have suffered and are suffering? Duty, and duty only, has bound our doctors and pharmacists to their posts in the devastated localities; some of them are carrying on their profession in the ruined remains of destroyed buildings, whereas others have to improvise at haphazard any kind of shelter for their Samaritan work. Need I describe the manner in which they sustain themselves and how they manage to nourish their wives and children?

I have witnessed such misery amongst them! Some have had to work as navvies in order to have a few pence in their pockets; others have told me that they had not seen bread for a fortnight, but had lived exclusively on potatoes. Others had a meagre bunch of straw laid on the bare ground as a bedstead; the only pair of boots owned by one of them was falling to pieces in tatters. Men I have seen were dressed in torn garments and their children were in rags. One of my colleagues had to live on wayside herbs for three days and three nights and his wife shared his fate! A professor of a university, bereft of everything, was, when I saw him, in dire want of a bed, and another of equal academic standard was wandering haggard over the countryside, searching in vain for a beloved family. And some of our ranks have been taken as hostages, others have been shot, and their widows and orphans have been left deprived of everything.

This description presents a genuine picture of the distress of the Belgian medical profession, but when these educated people are struck down by want they will never beg for charity: it must be brought to them. It is impossible to calculate how many of them are in this sore distress, and some have been so for days and weeks, but it is easy to see that the distress must be very widespread. Considering now the medical men only,

Belgium contained 4,800 doctors; the number of localities that have been destroyed is roughly as follows:—

Province of Brabant.—Londerzeel, Merchtem, Capelle-au-bois, Kotselaar, Wildouck, Cortenberg, Gelroode, Nieuwenrode, Wavre, Eppeghem, Beyghem, Ottignies, Mousty, Louvain, Jodoigne, Linsemaux.

Province of Limbourg.—Haelen, Lanacken, Tongres (partly).

Province of Liège.—Liège (partly), Mouland, Bermont, Visé, Micheroux, Batisse, Herve, Hermée, Milmont, Flemalle, Francarchamps, Lincent, Huy, Sielles.

Province of Namur.—Namur (partly), Bierwart, Narille, Tamines, Faliseulle, Andenne, Spontin, Evrehailles, Houx, Yvoir, Dinant, Bovinure, Anhage, Hartiere, Sommière, Walcourt, Mariembourg, Dourbes.

Province of Hainaut.—Charleroi (partly), Montignies, Morlanwelz, Gouy-les-Piéton, Lobbes, Beaumont, Frameries (partly), Merbes, Jemappes, Quaregnon, Marchienne.

Province of Luxembourg.—Rossignol, Etalle, Ethe, Florenville, Virtey, Arlon, Neufchateau, St. Hubert, Anthee, Arsimont, Marche, etc.

The deserted province of Antwerp and both the provinces of Flanders have been battlefields since one month, with the great struggle raging round Dixmude, Nieuport, Courtrai, Middelkerke, Ostende. What remains of those places to-day?

Each of those localities has its doctors and pharmacists, and at least 1,000 of the doctors are now absolutely poverty-stricken and 2,000 to 3,500 doctors are suffering cruelly through this war. We had 1,800 pharmacists all over the country, and at least 300 of them are unable to earn their living, and all of them, with very few exceptions, are deprived of the most necessary trading stock. I dare say that my estimate is below reality.

Consider the immense suffering that our medical brethren have gone through and are still going through. Their pathetic and lamentable distress should unite all in the desire to relieve it. These practitioners have given a lesson to the world of unfaltering energy, but now their breaking courage will have to be kept up. In this emergency I call on the medical profession of England to rally to our help. It will be for us a great debt of honor and of eternal gratitude.—*The Lancet.*

IN AID OF OUR BELGIAN COLLEAGUES

To the Editor of THE LANCET.

SIR,—The committee whose formation has already been announced in your columns is desirous of starting an immediate attempt to help the Belgian medical practitioners and pharmacists whose plight is so movingly represented by Professor Jacobs, as the delegate from a Belgian committee having similar aims.

The committee has made all preliminary inquiries, and has come to the conclusion that the most practical step which it can take at once is the despatch to Belgium in portable form of packets of medical and pharmaceutical material. These packets will be made up by Messrs. Burroughs Wellcome and Co. in accordance with an approved list, and will be conveyed to Belgium upon advice received from the American Ambassador and Mr. L. Hoover, the Belgian Minister, the manager of Messrs. Harrods, Limited, and Major Gordon, who has already done such good work as a medium for practical assistance between this country and Belgium.

The committee has already received promises of a certain number of subscriptions which justify it in making an experimental consignment, but it appeals to the medical and pharmaceutical professions in this country for funds to enable the Belgian medical practitioners and pharmacists to carry on their work effectually so soon as military and political circumstances permit.

We appeal also for surgical instruments; many of these, though not of the latest pattern, will be extremely valuable. The following are especially required: scissors, dressing and artery forceps, scalpels, syringes, and midwifery forceps. The instruments should be sent at once to the Master of the Apothecaries Society, Apothecaries Hall, Blackfriars, London, E.C., and any small adjustments required in them will be made.

Further, we want money to help the refugee Belgian doctors and pharmacists in this country, most of whom have nothing in this world left to them.

The intention is that the work of the committee shall develop, as the conditions of Belgium permit, and that the work

shall be associated with corresponding efforts in Great Britain and Ireland, in the United States and other countries which are neutrals or allies in the war.

Subscriptions should be sent to the honorary treasurer, Dr. H. A. Des Voeux, 14, Buckingham-gate, London, S.W., and cheques should be crossed Lloyds Bank, Limited.

We are, sir, yours faithfully,

RICKMAN J. GODLEE (*Chairman*).

THOMAS BARLOW,
President of the Royal College of Physicians of London.

W. WATSON CHEYNE,
President of the Royal College of Surgeons of England.

MEREDITH TOWNSEND,
Master of the Apothecaries Society.

W. J. WOOLCOCK,
Secretary and Registrar of the Pharmaceutical Society.

H. A. DES VOEUX (*Honorary Treasurer*).

DAWSON WILLIAMS,
Editor of the *British Medical Journal.*

S. SQUIRE SPRIGGE,
Editor of *The Lancet* (*Honorary Secretary*).

Nov. 18th, 1914.

CANADIAN CENTRAL EXECUTIVE COMMITTEE FOR THE RELIEF OF THE BELGIAN MEDICAL AND PHARMACEUTICAL PROFESSIONS

Toronto, January 6th. 1915.

Dear Doctor,—At the request of Sir Rickman Godlee, of London, a meeting was held and a Central Executive Committee for Canada appointed to undertake the raising of funds to assist the Belgian physicians and pharmacists who are in dire distress.

We will co-operate with Sir Rickman Godlee's Committee for Great Britain and Ireland, and the Committee in the United States and other countries which are Neutrals or Allies in the war.

Our Committee considered the best way to get at the entire profession in Canada would be to have associated with us on this Committee the President of the Canadian Medical Association, and the Presidents of the various Provincial and County Medical Associations, as well as the Presidents of the Medical Societies in the various centres, and the Deans of the Medical Colleges throughout Canada, with the addition of representatives of the Canadian Pharmaceutical profession.

That some immediate help is urgently needed will be made evident by reading the enclosed copy of a letter from Prof. Jacobs, the delegate from the Belgian Committee having similar aims. The Belgian Committee will act as the intermediaries through which the help will be sent, and are now despatching to Belgians in portable form packets of medical and pharmaceutical material, as well as surgical instruments.

This appeal for funds to the medical and pharmaceutical profession is to enable the Belgian practitioners and pharmacists to carry on their work effectually, as soon as military and political circumstances will permit. Further money is required to help the refugee Belgian doctors in England, most of whom have nothing in this world left to them.

Will you undertake to arrange a meeting and the appointment of a local committee, at as early a date as possible, to raise subscriptions from the physicians and manufacturing and

retail druggists in your locality. Subscriptions collected should be forwarded to the Hon. Treasurer of the Central Executive Committee, Dr. D. J. Gibb Wishart, 47 Grosvenor St., Toronto.

Should circumstances not permit of your active participation, may we ask that you so inform us at as early a date as possible, that we may appoint a substitute to undertake the work in your district.

Any amount that the doctors or druggists feel like contributing will be gratefully accepted. For your information we might say that many of the medical men here are contributing $25.00, others $5.00 and $10.00, but any subscriptions of a smaller amount would be equally acceptable. As the need is urgent, we hope you will give this matter as early consideration as possible.

Yours sincerely,

H. A. Bruce, *Chairman.*
Walter McKeown, *Secretary.*

Obituary

THE LATE DR. A. M. ROSEBRUGH TORONTO

Abner M. Rosebrugh, who died November 26th, was the son of Thomas Rosebrugh, U. E. Loyalist. He was born in Branchton, near Galt, where he was educated at the Grammar School; afterwards at Victoria College, Cobourg. After studying at the Rolph College of Medicine, he began his practice at Preston.

He soon began to feel the need of more knowledge in regard to the treatment of eye and ear. Fifty-five years ago there was no specialist, no oculist or aurist, in Toronto, so a student had no chance of studying in the proper scientific way diseases of the eye or ear. Feeling at a disadvantage in this

respect, he began to study and examine the eyes of rabbits, cats and dogs. Poor pussy would keep quite quiet while with one hand the doctor smoothed her fur and with a magnifying glass in the other examined her eye. Dr. Rosebrugh has said he was unfortunate in the success of his first simple operation, as it brought so many eyes to his country office. By this time he knew enough to know how little he knew. so he arranged his affairs and went to New York to spend the winter in hospital and medical school. Returning to Preston in the spring, he practised during the summer, returning to New York for three winters. Then he ventured to start a practice in Hamilton as oculist and aurist. His brother, Dr. John Rosebrugh, much approved of the innovation, and grateful patients expressed their appreciation. In the year 1863 he opened an office in Toronto. Wishing to begin his special practice feeling that he had the kind endorsement of the medical fraternity, he called on many of the doctors, telling them frankly that he had decided to treat only eyes and ears. He had not looked for any more encouragement than he received. While some of the older men in the profession were really glad to be rid of the responsibility of looking after eyes and ears, others said in so many words, "We will look after our own bread and butter." However. as Dr. Rosebrugh often said, "that is a long time ago." He became a skilful eye surgeon, and was very successful with cataract.

As office room was rather limited, and not any too large for paying patients, the problem was how to accommodate the poor who came daily. They stood in the hall, sat on the stairs, and sometimes found their way into the parlor. Through the generosity of a few business men an Infirmary was opened on Adelaide Street West, where Dr. Rosebrugh, and in time Dr. Reeve, attended to the poor afflicted with diseases of eye and ear.

Dr. Rosebrugh added much to the resources of the ophthalmic surgeon by his inventive genius. He was, moreover, a philanthropist in the full and best signification of the term. Prisoners owe much to his persistent and unfailing efforts to improve their treatment. During the last years of his life, he was the true friend of the inebriate. Probably no other man

on this continent had studied inebriety as thoroughly and as scientifically as did Dr. Rosebrugh. Almost up to the last day of his life he continued to welcome these unfortunate fellows to his house and to give them words of cheer and elevating, helpful counsel. In him they recognized one of their best friends.

DR. A. H. GARRATT

After several months of ill-health and four weeks spent in bed, Dr. Alton H. Garratt died on December 21st at his residence, 53 College Street. For twenty years he had been suffering from heart trouble, but was able to attend to his practice until shortly before his death.

The late Dr. Garratt was forty-nine years of age, and was one of the city's prominent physicians. He was born on a farm near Wellington, in Prince Edward County. He received his medical education at Trinity University, and graduated in 1888. He opened a practice in that year in Queensborough, Hastings County. It was while there that his heart became affected through chills contracted during long rides in all conditions of weather to visit country patients.

He remained in Queensborough about a year, leaving there to come to Toronto in 1889. In that year he was married to Miss Mima Fletcher, of Toronto, who, with one son, Philip Clarke, survives him.

The late Dr. Garratt was a Fellow of the College of Physicians and Surgeons, and was a member of the medical staffs of the General Hospital and St. Michael's Hospital. He was a member of the Simcoe Street Free Dispensary from the time he came to Toronto until his death, and was one of the members that served on the first committee of that institution. He was a member of Ionic Lodge of the Masonic Order. In religion he was an Anglican, being connected with Holy Trinity Church.

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Editorials

RELATIONSHIP OF THE PHYSICIAN TO THE GENERAL HOSPITAL.

THIS feature of hospital administration covers at present many good and bad points, but when we consider how young the whole problem is, we may feel much encouraged. Yet, despite the progress that has been made, we must aim at perfection. There are as many angles from which to view the relationship of the physician to the hospital as there are sides on a prism. Excellent results are obtained by every right-minded Board of Governors who study how other hospitals are controlled, who give their own medical staff a fair, unbiassed hearing, individually or collectively, and who carefully investigate, in the area from which they draw patients, the classes and causes of disease, the industries of the people, the problems of sanitation, food supply, architecture and transportation, and who, lastly, but most important of all, know the *morale* of the medical men, their skill, in-

dustry, aims and charities, or to be brief, how far they comply with the old oath of Hippocrates.

There will some day be the ideal hospital, with stationary structures for the acutely ill, the chronics, the insane, contagious cases, and the aged poor, as well as its "flying squadrons" of nurses, district, school, contagion and tuberculosis; and this ideal hospital will employ in some capacity suited exactly to his calibre, every medical man in good standing, in the community. In a moment, a skilled finger will be laid on the pulse of any case reported at the hospital office, that deviates from the absolutely normal in health.

What is the case at present? There are two classes of physicians, those having hospital appointments, and those who have not, and there are many in each who should be in the other. Why is this?

In every community there is some sort of medical society, modelled after the Royal Society of Physicians and Surgeons, which standardizes the various conditions affecting the physician's life and work. This society deals only with the men of its own profession. It culls its members, refusing those men recognition who are known to perform illegal abortions or to sell diphtheritic antitoxin to the poor. It keeps up the ethical standards of medicine for the ultimate benefit of the community.

But a hospital board cannot work along quite the same lines. Its area is selected, defined accurately in its charter, and its aims are different. It must dispense its few hard won funds to the greatest advan-

tage, since it is only a steward in a position of trust, for the philanthropists who give the money. It must work out its problems on a business basis, with *efficiency* for its slogan. Time was when hospitals were run on the narrow basis of sentiment, but that is not enough, as their balance sheets showed.

At that time, small groups of charitable people, generally ladies, were banding together, with a few picked physicians, many not any too strong as financiers, and did handle many sick people very creditably, but they were not demanding and giving the best.

Hospitals have outgrown that phase. These ladies' boards had to come to the point of getting advice from experienced business men who refused to be identified with any "hole in the corner" money schemes, and demanded in return for their advice and contributions skilled accounting and efficient administration. Now, any up-to-date board gives fair representation to the medical staff, at its meetings, squarely meets all the problems within its jurisdiction, and distributes positions and preferments without prejudice among the physicians.

Sometimes the boundaries of the area governed by these hospitals are merely those of creed, for instance, St. Luke's or the Methodist Episcopal in New York, sometimes a class of disease, as the Sick Children's or the Woman's of 110th St., New York, or yet again, it may be the only hospital in one town or county.

It is of inestimable advantage to a physician to be allowed to treat his own patients in a hospital, and

once well-established there, he cannot be dislodged with a Gatling gun, unless he has funds to start another, no matter how irritated he may be. If then it is advantageous to get a hospital appointment, which is a voucher by the board for him to the community, a man should qualify himself for it. He must be ethical, sober, industrious, with fair skill or better, modern without being too radical, and upright.

Of the second class of physicians then, previously mentioned, i.e., those without hospital appointments, there may be two sub-divisions considered, first, the older men who never held an interneship, lent the institution no aid in its infancy, kept hospital cases at home, to their detriment, by caustic remarks, and employed practical nurses in preference to its graduates; second, the very young men, who have just graduated as internes from some distant hospital, ethical, enthusiastic, idle, unrecognized, with patients too poor to be brought before the Governor's notice.

If a physician is not careful about using aseptic precautions, if he takes another man's patients, if he cheats his fellow out of the money lawfully due the latter for his aid, if he is dissipated to such an extent that it interferes with his skill, he cannot expect preferment from a Board of keen business men whose probity and frugality have spelled to them success.

The Board wants as many patients as it can care for, of the kind it elects. A physician need not be antagonistic because he cannot fill the wards of a hospital for acute disease with paralytics and epileptics. But it will open its doors at once and dole out

preferments very soon to the man who can lend it lustre by his honor, skill and reputation, since the poor, who come helpless, excited and unadvised, are provided with a doctor, whose services they must accept, and who then must be such that they cannot blame the hospital afterwards, for any untoward incident. Let the man who is petulant because he has for twenty years been denied access to the hospital of his town measure up by these standards.

Then, too, the enormous amount of ward work is expedited by the limit placed on the number of attendings. A quick, easy routine is established, to the advantage of the poor patient every time. The nurses, too, are not confused in their junior year by a variety of methods.

As for the young men who are trying to make the hospital, they will be wise to call in the hospital physicians rather than outsiders, for consultations when necessary. They may not have enough patients to be considered a powerful drawing card for the institution, but they necessarily work at first among the poor, who never are ill for pleasure, thus having the best and most interesting material. It dampens the ardor of a young man who has just creditably left a first-class interneship to sit with his hands tied while cases that he could treat must be passed up, since they must go to the hospital to men who could treat them very little better.

The hospital is responsible for the community's best interests, and it should take over the young men with good records, and use them as teachers, patho-

logists, or anesthetists, so as to keep their activities stimulated. They would not then grudgingly send in their cases, or hold them outside to the patient's detriment.

If the internes are to die of inertia, in the four or five years following, what is the use of an interneship? All hospitals in concert should work on this point, even though the Toronto interne decide to locate in Hamilton. Let the hospitals be their registry for their letters of credit.

The hospital physicians have in their own large practices many overflow cases and duties, to which the young men can attend, gladly seizing the chance to show their mettle.

As for the men who have hospital appointments, there is apt to be a tendency at times among them to hold little caucuses and slip things through, for their own protection or advancement, or to spike some rival's guns by a personal canvass of the influential members of the board. Then, too, it is only human for each governor to think his family physician entitled to more honors than any one else. But everything should be frankly discussed in open meeting.

A sharp, keen business method, of posting notices, and mailing important communications promptly, is very essential between the Governors and the staff, or between them unitedly and the community. Signs of secrecy cause suspicions at once to arise. Much ill feeling has arisen through notification of important changes being given to only a few of a certain class of physicians, instead of to the whole number.

In all this the superintendent must be absolutely eliminated, since he is only the appointee of the Board. Frequent references in the secular press to the acts of the Board will finally enlighten the interested public. Much bitter feeling is needlessly and unjustly directed against the superintendent in the performance of his duty, just as an excited housewife scolds the baker's boy for the delivery of sad buns. He has a code of rules drawn up by the Board and by the staff, and he acts as a buffer between them and the public. He needs a great deal of their sympathy and support, in interpreting their wishes. He is no autocrat as popularly believed, and those men who belong to the medical profession will show themselves most modern and sagacious who will discuss situations with him unreservedly and fairly, granting him his meed of respect, because he must have "made good" somewhere or he would hold no such position.

"TOO SICK TO BE NURSED TO-DAY."

This crazy old world is like the house that's upside down and the family sitting on the parlor ceiling. War is so horrible that we feel like standing uncovered in silence before the universal open grave it has made of the Old Land. But, in this new world, we must whistle a bit to keep our courage up and our sadness down and look with admiration upon the activities and the human side-forces brought into play, so wonderfully useful and beautiful, by the

qualities of self-sacrifice and devotion. But, alas and alack! we must add, when not overdone.

Surely it would be well if one of the energetic committees sent along with the next load of comforts a Noah's Ark for our boys at Salisbury, for the flood has outdone the scripture records of the past ages and lasted over "forty days and forty nights." If indignation were timber, a "Made in Canada" ark would have been in use now at Salisbury. From letters received from reliable sources at this office, we learn that our Canadians have been in quarters not fit for human beings. There will be many things to straighten out at the close of this war, as memory has a way of abiding. It is well for the nerves of the soldiers that they can laugh, and some amusing remarks from even their censored letters have been "going the rounds in Toronto about the loving brigade of 'sob sisters' who have usurped the rights of the trained nurses and made the sick beds of the men anything but beds of ease. One of the boys has emulated the example of a soldier too much coddled, at the time of the South African war, who put up a card on his cot bearing the following inscription, 'Too sick to be nursed to-day.' "

It is bad enough to be in the grip of pain from wounds, be they won ever so gloriously, but to have to "put up with a kind but clumsy young woman gushing over one, sticking every pin in as if one were a human pincushion, being burned with a hot water bottle—well, it's more than we bargained for." It is not right, it is only fair that trained nurses under

strictest discipline who know their work, and whose business it is to do it faithfully and well, should take charge of the wounded. No wonder strong protests come from surgeons and men alike at the nuisance these kind but misguided young busybodies make of themselves, and how their violent and untrained efforts often seriously retard recovery of their soldier victims.

What a pity that these "sob sisters" cannot see "theirsels as ithers see them" and go home, join the knitting brigade and get busy praying (as every woman should) for Peace.

Canadian Journal of Medicine and Surgery

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Original Contributions

A VISIT TO THE MAYO CLINIC

By John N.E. Brown, M.D.,
Medical Superintendent, Henry Ford Hospital, Detroit, Mich.

The last meeting of the American Hospital Association was held in St. Paul, within a three hours' run of Rochester, Minnesota. The writer, who was at the meeting, was thus afforded a convenient opportunity of visiting the celebrated Mayo Clinic.

The evening before my visit, I met Dr. "Charlie"—as he is known by his intimate friends—at the St. Paul Hotel, the meeting place of the association, where he was to read a paper on the "Relation of the Hospital to Medical Education." He had motored over with his family from Rochester, a hundred miles away. His home is on a farm a few miles out of town, and is modelled after the plan of the Sans Souci Palace and gardens, of Frederick the Great at Potsdam.

Dr. Charles is a man upward of fifty, rather stout of build, quiet in demeanor, possessed of a sympathetic voice—low-pitched—and kindly brown eyes; a man of pleasant address. After a few words, he informed me I would be welcome at the clinic on the following day, when he would be on the lookout for me.

After a trip over the beautiful driveways which connect the twin cities on the banks of the Mississippi, and a visit to the Minnehaha Falls, we left St. Paul and travelled southward by train through magnificent stretches of undulating country. Wonderful banks of cloud islands, edges gilded by the setting sun, seemed hundreds of miles distant. Here and there on the ample

farms were beautiful woodlands sheltering pleasant and comfortable homes. The air was dry, cool and stimulating.

I mention these facts regarding the environment of Rochester, because I believe these broad vistas, fertile farms, quiet, prosperous homes, glorious skies and bracing air have had some influence in the production of the men who have made the "Clinic in the Cornfields" the most famous surgical centre in the world.

Another potent influence which doubtless had much to do with the formation of the characters of these surgeons was that of heredity. The father was a doctor in Rochester for many years—one of the Minnesota pioneers. He must have been a man possessed of character and vision, desiring that his sons should receive a grade of medical training that had been denied him.

Arriving at our hotel, I observed that the guests were doctors with their wives, friends and relatives of patients, prospective patients, and convalescent patients.

One of the smaller dining-rooms of the hotel is set aside for the use of the bachelor members of the clinical staff. The men are from the leading medical colleges in America. They have been specially trained in the particular branches to which they have devoted themselves, and are spending three or four years here to increase their efficiency, and in so doing do much to increase the efficiency of the clinic. "The young man for the new problem" is one of the epigrams of Dr. William Mayo, the executive head of the clinic.

Among the assistants I met during my brief visit to the clinic were men trained at the Johns Hopkins, the University of Pennsylvania, the Universities of Toronto and McGill, in Canada, the North-western University, and other noted medical teaching centres.

The work of the medical corps of some seventy men is carried on mainly in two places. The St. Mary's Hospital, managed by the Catholic Sisters, is where the major operations are performed. It is ideally located on the outskirts of the town. Miles of smiling fields slope and dip until they meet the horizon in the distance. The other work-place is the clinic or diagnosis building. It is of the block type of construction.

Waiting patients, convalescent patients, requiring after-observation and after-treatment, fill several hotel-sanitariums and scores of boarding-houses of various degrees of quality throughout the town. They include people from all parts of the continent. One patient was from Candle, Alaska, and another was from Porto Rico, West Indies.

The visiting doctors were from districts as widely scattered —from New England, from Los Angeles, three or four representatives from Canada, east and west, and from Texas.

The patient may be required, like the sick at the pool of Bethesda, to wait his turn for operation, which, unless his case is acute, may be deferred for several days, owing to the busyness of the operator to whom he is assigned, and to a possible ante-operation preparatory regime.

It is manifestly impossible that all the patients should see one of the famous brothers; but where special request is made to see one of them an effort is made to grant the request.

Some 10,000 operations per year are performed here—2,000 operations for goitre alone. These figures give an idea of the magnitude of the work done.

But it is not the quantity of the work done alone that impresses one. The quality is also noteworthy.

The method of the examination of a patient is somewhat as follows:—

The patient is brought to the clinic by his local doctor or by a relative. He is suffering, let us suppose, from some more or less obscure disease of the stomach, which may have been diagnosed by the home physician, and operative relief is sought; or, the trouble may be obscure and a diagnosis is wanted, as well as relief.

A general inquiry is made into the patient's condition, physical and financial (he is charged according to his ability to pay), is referred to one department after another, each in charge of a specialist—referred as long as any new light is needed to clear up the diagnosis.

Thus is carried out the famous Oslerian dictum—"the first step in the treatment of any case is to make a diagnosis."

The patient with the stomach "trouble" has the contents of this organ analyzed at the laboratory by men thoroughly versed in physiological chemistry.

While at the clinic I learned from visiting medical men and from a member of the staff that the clinic had come in for a considerable degree of adverse criticism. It is stated that there is a degree of jealousy in certain regions against the clinic. The surgeons in a nearby city find it a strong competitor; and I am told, some of them, in order to get and hold patients from that section of the country split fees with the local physicians who bring them cases.

I was interested in hearing that the local physicians and surgeons in Rochester itself are busy men, and appear not to suffer from the presence of the clinic.

The clinic is very much talked about by everyone who attends it, whether he be patient or doctor. The result is that, if the patient does badly and dies, as occasionally happens, there is a dearth of patients, from the part of the continent from which he came, for some time. On the other hand, if the case does well, the reputation of the clinic is enhanced and the clinical material from that part of the country is increased.

To give an instance of the latter case:—

During my stay of two or three hours in the ear, nose and throat clinic, a bewhiskered farmer—I took him to be—about 56 years of age, came in to report. A few days before he had come from his distant home to the clinic, complaining that he had been for fourteen years a sufferer from tic douloureux.

The doctor in charge had injected alcohol into the region of the tri-facial nerve. The effect was almost magical. The man who for many years had scarcely been able to open his mouth and had been obliged to live almost entirely on warm milk, gently sipped, who dared not try cold water for fear of the excruciating paroxysms, was now able to take refreshing drinks of cold water. His face was lit up with smiles, and his enthusiasm was good to behold.

He was beginning to enjoy life again after a long drawn out period of torture; and his pleasure was not dulled by the conservative statement of the doctor that he must remain under

observation for a few days longer, in order to see whether or not the painful seizures would return, nor by the prediction that sometime he might again be a sufferer from the terrible affliction. These cases often do not recur for years; frequently remain permanently cured. The expression of gratitude on the part of the patient and the straightforward and modest attitude of the doctor recalled to my mind the maxim of Dr. Paré, "I tended him; God healed him."

The most of the return cases in this clinic are the common ones of running ears, diseased tonsils, cancer of the eyelids, deafness due to various causes, and sinus disease.

In purulent discharges from the middle ear good results appeared to be obtained largely by first cleansing the canal, followed by the introduction of about one half dram of saturated solution of boracic acid in alcohol.

Cases of lupus and superficial carcinomata were treated by radium, with good results.

All minor operations on patients able to walk about are done in the clinic building, such as, speaking generally, may be done under local anesthesia. Following these operations or treatments, the patients retire to their hotels or boarding-houses.

Reverting to the clinic for the treatment of the special sense organs, the work is carried on in four rooms en suite. The two end rooms are about twelve feet long by nine in width, the nine feet intervening being divided in two by a partition parallel to the outside wall. One of the rooms thus made—next the outside windows—constitutes a third small examining room; whilst the inner room next the waiting corridor (about the same size) forms a passage way between the two rooms. This is used for cautery treatments, and for giving such treatments as require insufflations of compressed air. Beside the air valve is a sputum sink. On a small table beside the cautery stands a bowl containing alcohol, into which the tips of the sprays are dipped to disinfect them.

The other three rooms are simply furnished—a small three-shelf wall cabinet about 2 ft. x 2 ft. x 5 in., which contains a few special instruments; a small three-tier shelf stand for dressings; a small table with a 2 ft. x 2 ft. top and an under shelf.

On the top of the table stand five or six two-ounce bottles—alcohol; 10 per cent. cocaine solution; 1-1,000 adrenalin; 1 per cent. novocaine, etc.

On the other side of the second story of the clinic building is the X-ray department. Here several men are employed—all leaders in their field. In one suite of rooms the thorax work is done, in another the kidney and pyelographic, in another the colonic, and in another the stomach.

The writer spent an hour or so with Dr. Carman, in the suite devoted to the examination of the stomach. With Dr. Carman were associated two assistants. The patients were brought from the dressing-room, through an ante-room about 8 ft. x 10 ft.—used for making plates when necessary—into an inner room of about the same size, where fluoroscope examinations were made.

An attendant brought the patient; also a brief general history of the case.

The patient's stomach had been emptied by fasting or lavage.

One of the assistants asked a number of routine questions, the answers to which were instantaneously noted on a special stomach form—questions relating to the pain, its duration; its character; vomiting, etc. This took about one minute. The patient was then made to stand on a low platform between the tube and the screen, in front of the seated examiner.

A second assistant placed in the right hand of the patient a pint bowlful of an emulsion of barium sulphide, which was drunk. The current was turned on for a few moments, then off for a few moments. The spectators could see the shadow of the ingested material entering the stomach as a blackened shadow. The folds of the viscus and the movements could be easily observed.

As soon as these were noted by the examiner the assistant handed the patient another drink of the same sort—a solution of bismuth in combination with starch or potato—with words of encouragement.

As this added portion was ingested the stomach was seen to distend—the wrinkles and folds flatten out. A few interrupted series of sparks flashed out while the roentgenologist moved the fluoroscope screen from side to side, up and down, and at various

angles. Having secured all the views wished for, the patient was courteously dismissed.

I was pleased for the patients' sakes, in the dozen who were examined, to note no serious pathological abnormality, cancer, ulcer, hour-glass contraction, gastroptosis, etc., though the workers, I fancied, were a shade disappointed at the end of the hour to find that nothing of great positive value had been discovered in the series. The negative evidence, of course, is of much value to the surgical chiefs, as learning what the trouble is not, they are, by exclusion, so much nearer arriving at the diagnosis.

It appears that ulcers situated near the lesser curvature of the stomach posteriorly cannot be successfully shadowed. In other parts of the stomach they often show on the plate as round black spots about the size of a small bean. During an operation I noticed one of the brothers recognize one of the posterior ulcers by touch. It had not been revealed by the X-ray.

Leaving the clinic we will proceed to St. Mary's Hospital.

On the top floor of the east end of a great four-storied block building is a suite of operating room and annexes. In six of these the chief surgeons operate continuously from 8 a.m. until 1 or 2 p.m., or even later, depending on the number of cases.

Herewith is a schedule of the operations noted for one day.

Room I.

Exophthalmic goitre, thyroidectomy.
Left ovarian cyst, subtotal abdominal hysterectomy.
Gall-bladder and duodenum, partial pyloric obstruction.
Explore stomach. Ulcer.
Nephrectomy, right kidney for pyonephrosis.

Room II.

Subtotal hysterectomy.
Pyloric obstruction.
Dilate and curette. Appendix and examine pelvis.
Right nephrectomy.
Kraske, carcinoma rectum.

Room III.

Total abdominal hysterectomy.
Gall-stones.
Appendix and examine gall-bladder.
Epithelioma, larynx.

Room IV.

Adenoma of thyroid.
Resection mass, right thyroid region.
Cyst, right neck.

Room V.

Exophthalmic goitre. Ligation.
Explore gall-bladder and stomach.
Repair cervix and perineum.
Tonsils and adenoids.

Room VI.

Adenoma of thyroid.
Right hydrocele. Left omentocele.
Tonsils and adenoids.
Inflammation gland, left neck.

The Mayo brothers and one assistant do general surgery; one assistant does bone surgery, another brain surgery, and the sixth corrects deformities.

Between operating rooms I and II there is a sterilizing room. A second sterilizing room serves the remaining three, if I remember well.

The dressings are sterilized in bundles instead of in drums. The sterilizers are some 30 in. in length and about 24 in. in diameter. The usual water, instrument and utensil sterilizers are also in evidence.

The wash-up for surgeons and nurses is in the operating room, water from the regular hot and cold water taps being used. Dr. William Mayo informed me that as the water supply to the hospital was sterile, and all of that passing through the hot

water tap had been boiled, they have no compunction about washing up or cleansing their gloved hands during an operation in this water. The tap is manipulated by the means of a foot valve, and ejects a copious stream. On the mouths of the taps are tied layers of gauze.

The operating rooms are some 16 ft. x 18 ft. There is an observation stand in each, capable of accommodating a dozen onlookers. Over the operating table in room No. I is a large mirror suspended from the ceiling, which affords a good view of the operation.

The instruments and dressings are spread on a rather spacious table conveniently located. These tables are covered with sterile sheets, as is also the wall behind them to a height of some thirty inches.

The more frequently used instruments are placed on a table attached directly to the operating table—just over the patient's knees. Beyond this, between the patient's lower legs, is a basin for the soiled sponges and used instruments. The two types of operating tables used were: (1) A German, on the single, heavy pedestal, revolving and adjustable as to height, adapted also to various positions, built by the Kny-Scheerer Co.; and (2) the Minnesota White Line table, manufactured by The Scanlan Morris Co.

The patients are disrobed in a small room near at hand, and brought through the corridor—among many doctors, quite often —into the operating room, where they meet the operator, climb on the table and go off quietly.

I asked Dr. Charles Mayo if this procedure of giving the anesthetic directly in the operating room met with his approval. He said that it did. He said that he liked to be present in the operating room to meet his patients when they arrived. Where they had seen him at the preliminary examination they liked to have him present while the anesthetic was being administered. It gave the patients confidence. I did not notice any shrinking or diffidence on the part of the patients.

The surgeons do not use any other anoci association methods, as far as I observed, except the psychical as above exemplified.

" Dr. Crile is a great surgeon," said one of the staff to me, " but not because of anoci association."

For years nurses have given the ether, and, I believe, with good results. It is claimed that women perform this duty better than men. They are not tempted, as doctors are, to watch the operator. It is a natural process—maternal—to be put to sleep by a woman. The point is of psychological significance.

The ether is administered through an ordinary inhaler covered by many layers of gauze. When the under layers are well soaked several thicknesses are superimposed, which keep the fumes from escaping into the air. The upper layers are opened when fresh anesthetic is given or more air is needed.

The patients are strapped down to the table by the wrists and ankles. While I did notice the patients move a little I did not observe that the operators were bothered with abdominal straining.

On no occasion during my two days' stay did I notice any of the surgeons exhibit the slightest interest in what the anesthetist was doing. I noticed that the patients in Dr. Wm. Mayo's room were not deeply under. I asked one of the anesthetists as to this. She told me Dr. Mayo preferred that the patients be kept near the waking margin rather than deeply under.

The anesthetist appeared to me to pay no attention to the pulse, pupils, or conjunctival reflexes. The respiration seemed to be the main thing loked for and listened to.

It is quite an amusing and edifying experience to be present during Dr. Wm. Mayo's operations, particularly if the doctor is in a reminiscent, didactic, homiletic or story-telling mood.

The greater number of operative movements with him are like those of the skilled musician, automatically playing a well-remembered selection on a piano; the muscles and lower brain centres do the work in hand, while the upper brain is reflecting, remembering apt incidents, salient points in the character of friends. These are reproduced with dry humor, sarcasm or homely touch.

The senior brother loves to take a crack at the ultra laboratory refinements and the over emphasis often laid upon them

(to quote hm) "characteristic of a well-known medical school—too well known to be mentioned."

These superfine points Dr. William Mayo refers to as the pennies and nickels of diagnosis; and are, he declares, often made much of, while the ten-dollar bills are overlooked.

One forenoon, while operating on a case of gall-stones, he opened a monologue in this vein:—

"You know," said he, "some of our bright young men will spend hours investigating a case of this sort and find a long list of signs and symptoms, and perhaps overlook the two great diagnostic points in the case, the mass under the liver and the colic. I know one of these young men, a graduate of an A1 college, with a good training here. After looking around for a place to settle, he came to me to say that he believed he would go out to a certain locality. 'There's only old Dr. Smith there,' said he, 'an old fogey. He's twenty years behind the time; he can't do a blood count, a stomach analysis, or any of these new stunts. I believe that is the place to start.'

"The young man went to the place, and I learned that his pride was very much hurt on one occasion.

"After making a very careful examination he found a number of diagnostic pennies and nickels, but was uncertain what the real trouble was. The family, getting anxious, called in old Dr. Smith, who, after a few moments, made a positive diagnosis on a couple of ten-dollar bill diagnostic points, much to the dismay of the young man. Dr. Smith was trained to look for big things upon which the diagnosis of most diseases can be made.

"You know," Dr. Mayo went on, "there are everyday diseases and Sunday diseases. Give me the man who can make a diagnosis of an everyday disease. We sometimes find a man who can make a Sunday or holiday diagnosis, but who is an utter failure on the everyday diagnosis.

"Now, take the subject of occult blood, for instance. We hear a great deal about occult blood. 'Occult blood'—you know what 'occult' means. You remember, years ago, when we were younger, occasionally Hermann, Keller, and other magicians used to come to town. You have seen them." As he said this,

Dr. Mayo's twinkling grey eyes were turned inquiringly upward under his heavy eyebrows to the visiting doctors ranged on the observation stand.

"The town people all turned out. One of the stunts the magician did was this:—

"He asked someone to lend him a top hat. Well, about the only fellow in the town who owned a top hat was the sheriff. (You know the sheriff is always a good fellow, he has to be a good fellow, a popular fellow, or he wouldn't be sheriff. And he wears a top hat.)

"Well, everybody looked at the sheriff, and they called out to him to lend his hat. So the sheriff, getting red in the face, handed up the hat.

"The magician took the hat, covered it with a cornucopia, and gave it a shake. He then put in his hand and pulled out a big bouquet of flowers. He put in his hand again and hauled out a rabbit. He then withdrew to the rear of the platform, stumbled and fell upon the hat, apparently accidentally, crushing it flat. Everybody laughed. The magician looked horrified at the damage he had done to the hat. But with a few magic movements he restored it to the sheriff as good as new.

"That is doing the occult; that is what occult means. So whenever I hear about occult blood, I think of Keller and the sheriff's hat.

"Our own laboratory diagnostician triumphantly reports that in a stomach analysis he has discovered 'occult blood.' Now, what does that mean? Well, it doesn't mean much to me. What definite information does it give? Little or none. This blood may come from an ulcer, or a carcinoma; it may result from the use of the toothbrush—you have heard those fellows cleaning their teeth in the morning in the sleeping car, which operation sounds like an old woman scrubbing the front steps. Well, those fellows will have 'occult blood.' It may also result from eating meat; and from other sources. You can't count upon it. It is one of the diagnostic pennies."

This straining after the comparatively unimportant was emphasized over and over again by the chief as he handled the intestines, dissected and stitched.

"Ochsner," exclaimed he, looking up again, "tells a good story, as he alone can tell it with all the frills. I cannot attempt to reproduce it as he tells it. It was in regard to a preacher who came to take charge of a church in a certain village. Now there belonged to this church a horse trader. The preacher needed a horse, and, naturally, turned to the horse trader to procure one for him.

"So he asked the horse trader if he would sell him a horse. A great struggle took place in the horse trader's mind. It is delightful to hear Ochsner describe the agony of the man—torn with conflicting emotions—his desire not to cheat the preacher —to overcome his long-acquired habit of over-reaching, and, on the other hand, to make something on the deal. He did not want to lose his status in the church, neither did he want to lose his reputation as a horse trader. The horse dealer asked for a day's grace. The interval was one in which there was a great battle in the man's conscience. The following day the minister returned and inquired if he had picked out a horse. The trader replied that he had, and set the price. 'But,' said he, 'he has one or two faults I ought to tell you about.'

"'What's the matter with him?' queried the parson.

"'Well,' the trader replied rather hesitatingly, 'if he gets loose you can't catch him.' The preacher thought for a moment. 'Oh! that's all right,' he said, 'I am going to keep him in the stable, when I am not driving him. He'll never be loose. I'll take him.'

"So the preacher took the horse, hitched up, and drove off. But before he got many yards away, the horse trader, conscience-smitten, ran after him to tell the truth; and in a state of great agitation he blurted out, 'When you do catch him, he ain't worth a darn.'

"That's the way with some of these diagnostic findings," concluded Dr. Mayo, with a smile, "when you do get 'em they ain't worth a darn."

Society Proceedings

THE ONTARIO MEDICAL ASSOCIATION

The programme of the Ontario Medical Association meeting in Peterborough is almost completed, and promises to be most interesting. The addresses will be given by eminent men from the United States, and the other papers will be from outstanding medical practitioners all over the province. The Medical Health Officers' Association is to meet in conjunction with the Ontario Medical Association, and a very large attendance is assured.

Peterborough has made every preparation to look after the crowd. There are plenty of excellent hotels, and the large drill hall will give ample accommodation for all meetings. The Committee on Papers and Business are now sending out notices to those who are taking part, and we hope next month to publish the provisional programme in full.

CANADIAN MEDICAL ASSOCIATION MEETING, 1915

Vancouver is this year to have the honour of entertaining the Canadian Medical Association, with Dr. R. E. McKechnie as president-elect.

The local committee, with Dr. Brydone-Jack as chairman and Dr. Frederic Brodie as local secretary, has already accomplished a large amount of work preliminary to the meeting, and can promise a warm welcome and an interesting programme to visitors.

Chief amongst the attractions will be two symposia, one on "Chronic Arthritis" and the other on "Chronic Infections of the Kidney." Participation in the discussions in these has been promised by a number of eminent men from all Canada.

Military surgery will this year take an important position in the meeting, although when the present war is over more of the profession in Canada will be able to take an active part in the discussion.

Vancouver itself offers many local attractions and the Panama Exposition at San Francisco will, no doubt, entice a number of visitors to extend their trip south. Arrangements for this are being made with the transportation companies, whereby special inclusive rates may be obtained.

Obituary

DEATH OF DR. ROY WILSON

We wish to join with the entire profession in Toronto in deepest sympathy to our esteemed confrere, Dr. R. J. Wilson, 20 Bloor St. West, Toronto, in the untimely death, a few weeks ago, of his only child, Dr. Roy Wilson. The deceased was an exceptionally bright young man and a model son. He graduated in November 1914, when he passed his last " Final " before the Medical Council. He was to enter Toronto General Hospital as one of the House staff on New Year's Day, but Providence ruled otherwise, as he took ill a day or two before that. His illness lasted but a few weeks, death ensuing somewhat suddenly on January 22nd. His death was but a promotion to the higher life, as Roy was an earnest Christian young man and is now in the Better Land with his mother who predeceased him nine years before. We tender very deep sympathy to his good father, our fellow graduate of 1886, and pray that grace will be given to support him in his sore bereavement.

Personals

The profession are pleased that Dr. John Malloch, of College Street, has recovered from his recent severe illness.

Dr. Malcolm S. Woodbury has been elected Superintendent of Clifton Springs Sanitarium, Clifton Springs, N.Y., to succeed Dr. James C. Mumford, whose death occurred on October 18th, 1914.

Lieut. Harley Smith, son of our esteemed confrere, Dr. Harley Smith, Harbord St., Toronto, was a few weeks ago sent up into New Ontario in charge of a number of military prisoners, the majority of whom were Austrians by birth.

Dr. W. Thompson, of London, has been appointed Examiner in Midwifery and Gynecology by the Ontario Medical Council. Among his qualifications is the not unimportant one of being brother-in-law of the President of the Council, Dr. McArthur, of London.

The following Canadian doctors have left Salisbury Plains for the front: Col. Carleton Jones, Col. J. W. Bridges, Lt.-Col. W. A. Scott, Lt.-Col. Rudolf, Maj. Gardner, Maj. Goldsmith, Capt. Call, Capt. McLeod, Capt. McBeth, Capt. Colquhoun, Capt. Leslie, Capt. Bethune, Capt. Tytler, Capt. Wilson, Capt. McKay, Capt. Philip and Capt. Menzies.

The following is the list of officers in No. 2 General Hospital, First Canadian Contingent, Salisbury Plains, England: Col. Bridges, Montreal; Lt.-Col. Scott, Toronto; Maj. Clark, Montreal; Maj. Rudolph, Montreal; Capt. McBeth, Toronto; Capt. McLeod, Toronto; Capt. Burke, Toronto; Capt. Philip, Hamilton; Capt. Bethune, Hamilton; Capt. Cole, Toronto.

The Physician's Library

Recollections and Records of Toronto of Old—with references to Brantford, Kingston and other Canadian towns. By W. H. Pearson. Toronto: William Briggs, 1914.

After reading the better part of this exceedingly interesting book, we can conceive of no more suitable New Year or Easter gift. To anyone who can claim dear old Toronto as his home for the past half century, Mr. Pearson's "Recollections and Records of Toronto" will be a source of the keenest pleasure. Notwithstanding the fact that two or three other somewhat similar books have appeared during the past decade or more, Mr. Pearson's work is easily the best. It contains a great deal of information as to what Toronto used to be when he was a lad. It goes back to the period in 1834, when the Queen City of the West consisted of but a few houses, and gives the history of its civic and religious life from that date almost to the present. The chapters devoted to King Street, Wellington Street, Church Street, Queen Street, Yonge Street, as they then were, are exceeding interesting, and we feel that the book should find a place in every Toronto library.

Field Ambulance Notes. Capt. M. F. Grant, R.A.M.C. Forster, Groom & Co., Ltd., 15 Charing Cross, London, S.W., Eng.

Too much cannot be said in praise of this unofficial *vade mecum* for A.M.C. Officers, particularly those in the strength of a Field Ambulance. It should be in the hands of all the officers of our Canadian service. It is fully up-to-date, and from cover to cover abounds in helpful advice in the interior

economy and administration, as well as the tactical handling of one of the most essential units in our British scheme of medical assistance in the field. J. T. F.

Immunity. Methods of Diagnosis and Therapy and Their Practical Application. By Dr. Julius Citron. Translated from the German and edited by A. L. Garbat, M.D. Second Edition. Philadelphia: P. Blakiston's Son & Co. 1914.

This little book of Citron serves a certain purpose in presenting in concise form material otherwise only available in laboratories possessing the large systems dealing with the subjects of bacteriology and immunity. So much work has been done, particularly in immunity, that even the more pretentious German "Handbuchs" on the subject are often remiss in their treatment of the most recent contributions. Some of these books however, especially those of German and French origin, have the more serious and annoying habit of quite ignoring the English and American literature. Citron has emulated some of his colleagues in this particular and an otherwise admirable book leaves itself open to strong criticism.

A concrete instance of the point complained of occurs in the section devoted to the work on chemotherapy, where Wolferstan Thomas' work with atoxyl is completely ignored. This is perhaps of less moment than a statement on page 71, which reads: "Koch's differentiation between bovine and human tuberculosis led to attempts," etc. This is a typical example of the methods of a certain type of German laboratory worker. Theobald Smith, who is absolutely entitled to the credit for this work, is not even mentioned, and Koch is given the credit.

One cannot, therefore, fairly say that the book has any pretence to consideration other than that of a small laboratory guide in immunity, presenting many methods, some of them of value, others worthless (e.g., Much-Holzmann test), but all of them, according to the author, made in Germany and for German consumption. The English edition, one would expect, would supplement and include these omissions; this has not been done however.

It is the opinion of the writer that those who are guided by this book will have a very biased and one-sided knowledge of

immunological methods and not one that will qualify them to do the best work in the field of immunity.

It is unfortunate, but it is true, that this manual cannot be recommended as a substitute for either Kolle and Wassermann or Kraus and Levaditi; and this seems to have been the author's aim in compiling the book. J. G. F.

Geriatrics, the diseases of old age and their treatment, including physiological old age, home and institutional care, and medico-legal relations. By I. L. Nascher, M.D. New York. With an introduction by A. Jacobi, M.D. With 50 plates containing 81 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street.

It must be many years now since the last work on diseases of old age appeared from the American medical press. Why such should be the case we hardly know, as there are many conditions incident to old age, apart from the well-known arterio-sclerosis. The name "Geriatrics" is original with the author, being derived from the Greek *geron,* old man, and *iatrikos,* medical treatment. The volume covers 500 pages and is divided into physiological old age, pathological old age, primary senile diseases, secondary senile diseases, modified diseases of old age, preferential diseases of old age, diseases uninfluenced by age, and hygiene and medico-legal relations. We feel, after looking over the volume, that it should undoubtedly stimulate interest in diseases among the aged and save original research into both their causes and pathology. We congratulate the author upon the result of his labors.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles. Edited by Henry W. Cattell, A.M., M.D., with collaboration of Editors in the United States, Canada, England, Scotland, Austria. Volume II. Twenty-fourth series. 1914. J. B. Lippincott Company.

The second volume of the present series maintains the standard of previous volumes. Articles appear in the depart-

ments of diagnosis and treatment, medicine, surgery, obstetrics and child welfare.

One expects articles reaching a high standard and is not disappointed. It is difficult to measure relative values where all are good. We might mention as of special merit Dr. Steel's short article on Blood Transfusion by a simple method applicable by any physician in an emergency.

Your reviewer must, however, protest against Maud Vinton's paper on "The Teaching of Sex Hygiene," mostly a prurient mess of maudlin sentiment and ill-balanced deductions, from which we extract this recommendation, "Then let us . . . create a new specialty, which should be a well paid one—the sex hygiene specialist!!"

The third volume of the series contains articles in the realms of diagnosis and treatment, medicine, electro-therapeutics, surgery, child welfare and medical problems.

The principal article is that by Skillem, on "The Surgical Clinic of John B. Deaver," which covers a large number of operations for various conditions. Can we agree with the statement on page 234, that the appendix should be removed as a routine measure in the course of abdominal operations for other conditions? The Mayo Clinic follows this teaching, and reports on 5,000 appendices removed during the course of routine abdominal operations.

The writer of the article on "Big Fees," will surely be flooded with letters of information in reply to his "If there are other reasons than those I have mentioned why a man of wealth should pay more for the same services than the poor man, I hope that some other member of the profession will enlighten me."

Dr. Mackay's short article on "The Waste in Medical Education," presents the point of view of many in general practice, a protest against the present course of study in our medical colleges. He asks for co-ordination and a more systematic blending and sequence of studies.

Pemberton's successful treatment of "Rheumatoid Arthritis" is suggestive, but not convincing. The article is too short to be of value.

The "Clinics" continues to justify its existence as an up-to-date review of special subjects in the domain of medicine.

The articles in the concluding volume of the present series appear under three main heads: Diagnosis and Treatment, Medicine, and Surgery. There are good short reviews of Abderhalden's test, of twilight sleep, anterior poliomyelitis, and of muscular atrophy as a symptom. Kelly's article on "What Radium Can Do" is disappointing; he is absolute, however, in his statements as to its use in gynecological conditions.

Under Surgery the Mayo Clinic is described, as is the London Clinical Congress of Surgeons.

As usual, the volume contains a large amount of useful information in the discussion of a wide range of subjects.

J. H. E.

Pathogenic Micro-organisms. By Prof. W. J. MacNeal, New York Post Graduate Medical School. 462 pages, with 213 illustrations. Cloth, $2.25 net. P. Blakiston's Son & Co., Phila., 1914.

This book is in the nature of a revision of William's Manual, and is intended as an introduction to the study of pathogenic micro-organisms, for students. It is conveniently divided into three parts—Part I being a thorough description of laboratory appliances and methods, Part II devoted to the general biology of micro-organisms, and Part III to a consideration of individual microbes. Considerable space is given to the discussion and importance of the protozoans, filterable viruses and yeasts. The subject matter is condensed, well arranged, and the book is well illustrated.

AN IDEAL RESORT FOR CONVALESCENT PATIENTS

PHYSICIANS have frequent opportunities of referring those convalescing from illness to a resort where they can quickly recover their old-time vigor and enjoy an almost ideal climate, 2,500 feet above sea level. Such a resort is Virginia Hot Springs, just one night out of New York. The management have spent a huge sum of money on this choice spot in "Old Virginny," and are anxious that the Canadian medical profession should continue to refer cases there, as they have done in years gone by. The Homestead Hotel is one of the handsomest houses in America. It is built of solid brick, containing 500 guest rooms, with many parlor suites and 300 private baths. It is spacious, dignified, quiet and restful, with magnificent mountain views on every side. It is no exaggeration to say that Hot Springs means the Homestead Hotel. The Company owns 5,000 acres surrounding the hotel, so that physicians can understand that their patients have every opportunity of enjoying outdoor life and regaining thereby their normal strength.

The dominant factor making Hot Springs world-famous is the cure in which the climate as well as the water assist. The waters are conducted by gravity to the bathhouse and distributed fresh from the ground to the bathing apartments on different floors without loss of heat or its increase by artificial means, and fully charged with all their gases and other health-giving qualities. At none of the celebrated places in Europe, and at no other springs in America, is the temperature prescribed for hot baths that at which the water actually emerges from the earth in the natural springs.

The springs are beneficial, not only for bathing, but for drinking. Besides the hot springs, the effects of which as drinking waters are pronounced, there are magnesia, sulphur, and soda springs within the grounds, and alum water from a spring not far distant. The water from the soda spring comes strong and clear from the ground at a uniform temperature of 74 degrees. Physicians should address for full information H. Albert, Esq., Hot Springs, Va., U.S

BOOK REVIEWS

(*Continued from page* 101.)

Local Anesthesia. By Dr. Arthur Schlesinger (Berlin). Translated by F. S. Arnold, B.A., M.B., B.Ch. (Oxon.). London: William Heinemann (Rebman, Ltd.). Price, $1.50.

Banishing all enmity arising out of war, and examining Dr. Schlesinger's book on its merits, we find the whole subject of local anesthesia covered in a very clear and practical way. Its field of usefulness, its virtues and its limitations and dangers, are so fully and lucidly stated that his book is a most valuable aid in practice. J. H.

On Dreams. By Prof. Dr. Sigm Freud, with an introduction by W. Leslie Mackenzie, M.A., M.D., LL.D. Published by William Heinemann (Rebman, Ltd.), London. Price, $1.00.

Professor Freud, from a long experience, and from careful study of abnormal psychic conditions, has evolved a rather ingenious method of interpreting dreams. His method is novel, and so lucidly explained that any one reading the book will find much pleasure and profit in interpreting his own and other people's dreams. J. H.

The Question of Alcohol. By Edward Huntington Williams, M.D. New York: The Goodhue Co., 120 West 32nd Street, New York. Cloth, 75 cents. Flexible leather, $1.25.

This compact little volume deals with the problems involved in alcoholism from the physical and legislative aspects, and while it exposes many of the fallacies entertained in regard to the virtues of "prohibition," yet it suggests many rational and practical methods of dealing with the evils of alcoholism. It well repays a careful reading. J. H.

Materia Medica for Nurses. By A. S. Blumgarten, M.D., Instructor in Materia Medica at the German Hospital Training School for Nurses, New York. New York: The Macmillan Company, 1914.

The simplicity with which this book sets forth the use of drugs and their action is to be commended. The author has grasped the art of writing in a clear, concise, yet congested manner all the information necessary on the subject for the modern nurse. It gives a simple classification of all important drugs, and also the different methods by which these drugs may be administered.

This book is certainly one which can be most highly recommended for nurses' training schools.

N. J. L. Y.

The Hypodermic Syringe. By George L. Servoss, M.D., Editor of *Nevada Medicine,* Member of the Nevada State Medical Association, Fellow of the American Medical Association. Physicians' Drug News Co., Publishers, Newark, New Jersey, U.S.A. Price, $2.00 net.

This work will be found useful by those interested in the hypodermic uses of the various drugs and chemicals, and also in the theory and uses of Bacterins and Tuberculins. Anesthesia, shock and syphilis receive some notice, and, in fact, any condition in which the hypodermic syringe is indicated. The author favors the stock Bacterins in preference to the autogenous ones, not only from the ease with which the stock preparations may be procured, but from an apparent preference for the shot-gun compared with the rifle. The doses and modes of administration, and indications for the various drugs, chemicals and Bacterins, are from the results of experience and will be found useful.

W. J. W.

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Editorials

THE STRUGGLING LABORATORY OF SMALL SUBURBAN HOSPITALS

THOSE men who are furthest advanced on the medical staff of these institutions took their interneship, if any, at a time or in a place where laboratory examinations and original research were only in an incipient stage, to say the most. After becoming established in a busy, profitable general practice, they do not care to devote a number of months, or days per week, to what would now prove an entirely new study, since their memories are less tenacious, their minds less avid of new facts, while the tests, stains, formulæ and compounds are so entirely different from those of their young days. The modern pathologist is in touch with the newest findings of every research worker in the foreign field. The 25,000 mile long equator has been rammed by the press, the wireless and the telephone till telescoped into one-tenth its old length. A far greater amount of test work is done now, on groups of patients, to obtain statistics

that will serve as a guide in the modern crusade of *Prophylaxis.* The keen competition to make a correct diagnosis involves blood cultures, vaccines, and other work so extensive that, were they to hang over a microscope daily in order to make their own examinations, they could not but neglect some of their lucrative calls. Moreover, no one individual can afford all the necessary equipment. Concentration of materials is a saving of every best energy to the community through conserving its finest minds to choose what they can do best. This is the age of specialization. When a youthful medical graduate, rather than independently face the storms and mud and rains of a country practice with his faithful horse, prefers to have his life controlled and regulated for him by others, so as to have regular day work, no night work, no calls just for charity, and the feeling that at six o'clock his day is done and he may go to dinner or the theatre without any nagging sensation that some patient needs him or that he is missing a couple of dollars; if his tastes and training have fitted him for laboratory work, which in the most numerous needs of the physicians is at best largely a matter of stereotyped schoolboy routine, such a person could be advantageously taken on the staff of the hospital at a modest salary sufficient to compensate him for the time and study it actually required, as well as the present worth of the future practice he is not drumming up. Where such a young man, in a few years more, might have developed a better clinical sense, as he himself matured, and, mingling with other citizens cultivated within a finer, broader, altruistic spirit and a keener perception of his

own duties to the community, he might feel that the laboratory work was becoming too unremunerative and irksome, in which case he then asks the staff to appoint a successor whom he will cheerfully initiate. He cannot honorably withdraw by degrees from his daily duties, leaving them to a new interne, for his own sake.

Sometimes a young woman physician has been suggested for this work. As a rule they are very painstaking and conscientious, with a complete mastery of detail. Likely, however, the salary paid would be insufficient to cover all of her expenses in maintaining her own establishment. Generally it is reduced so that she resides in the hospital. This, however, is like throwing the apple of discord among the gods and goddesses. The gods, i.e., the internes, resent her being placed over them as instructor. The goddesses, i.e., all the supervising nurses, " to a man," would look askance at her, and probably make her life miserable. Any house duties assigned her would cause involvements with confinement cases, or men patients' catheterizations by adroit planning, which are not desirable. The man patient likes the nurse who brings him a tray of tempting food better than the woman who nervously does his dressing.

When it comes to choosing a pathologist, we hark back to a principle previously set forth herein, that a young graduate from a medical school should have, when he finishes his interneship, a reliable statement from the staff under whom he served. Both internes and nurses are treated in an entirely too impersonal way

while in training. The President of a certain Board of Governors, in selecting quarters for the house staff in a new administrative building, thought " the basement would be a fine place for them," next to the morgue, the laundry and the potato bin. They are held more with the purpose of getting the routine hospital work done cheaply than of giving them the advantages which should accrue to such indispensable folk, or developing in them their shred of talent for some one branch of medicine.

It is the sacred duty of the staff to ascertain positively how much each house man knows or doesn't know, and how far he can be relied on, in testing urines, giving first aid when on the ambulance, or giving an anesthetic. But the staff are too much engrossed in getting through with their work on the free wards, and getting out to make some more pay calls, to realize that every time they correct errors in an interne's mediocre physical examination, pointing out an interesting heart lesion he has missed, or a badly put-up fracture, they are aiding not only the interne, but the patient in hand and all those patients whom he will handle when he practises independently. The young man who gives all the urines the " sink test," breaks an expensive piece of laboratory apparatus and writes up a fictitious report to divert investigation, or forgets to find the placenta in an emergency ambulance call to a maternity case, could gravely be pronounced guilty of homicide before a high moral tribunal. While to his immature or warped, selfish mind those things are smart or funny, or justifiable through rush of work, very often truly impossible to

do right, the only honorable course to pursue is to state the facts to his attending physician, and then accomplish as much as he can. Were the staff to keep in personal touch with the house men, like father and son, correcting them when sure of being right themselves, never forfeiting their respect, a diploma specifying that this interne was " rated in Class A for physical diagnosis and Class C for surgery " would carry more real commendation with it than the present meaningless wording. The same process of dignified supervision, correction and weeding is just as necessary among internes as nurses, particularly as the formers' knowledge of ethics is yet only abstract and brief, while the latter must live volumes of ethics every day. The interne likely thinks his ethics can be shelved till he hangs out his shingle.

Any man, so trained, who can be absolutely relied on, is a creditable addition to the community. If he prefers laboratory work, the local staff or medical society, or Board of Health, in pursuance of his credentials could install him in their laboratory, with a reasonable equipment, and hope for good results, with his co-operation instead of hostile influence. In this event, the hospital is reimbursed for his salary by two grades of fee, from private and pay ward patients, the latter covering simply the minimum cost of materials.

Were it impossible to find such a man in one community, there will surely be one within a radius of fifty or eighty miles, on whose visiting days are taken the special specimens which his interne assistant cannot do, who is slowly, honestly following along in the pathologist's footsteps—one method, one schedule, one uniform

system. Special delivery packages and special messengers would do the rest, on the part of the hospital, in emergency.

It would be manifestly unfair to take out of the hands of the hospital—and this young pathologist, consequently—any of the work for the private patients in the institution. It would also be unfair for him to perform tests in the laboratory, free of charge, for any patients outside the institution. A scale of rates is drawn up, by consulting the bills for supplies, through a committee consisting of members from both boards, the superintendent and the pathologist, called the Laboratory Committee, and such tests as are made by the hospital workers for outside patients are at once reported to the office for collection.

The local Board of Health constantly requires pathological examinations for diphtheria, etc. If this could be severed from politics and graft, the same pathologist could further eke out his living by equipping his own office to do their work. The essences of disease in a community should not be brought to the hospital. It is found that few Health Boards have good laboratories yet. They are impersonal organizations, governed abstractedly from distant centres, swayed by the two big P's, Push and Pull, on which the medical society of the community should act as a balance-wheel, so as not to suffer from lack of practical application of modern science to what they much better know to be the needs of the community. The general practitioner is a valuable scout. It is quite possible to have a consulting pathologist of rank within range, who is occasionally

called in to provide facilities for and stimulate the activities of this future Ehrlich or Lister.

Necropsies form an important share of the pathologists' work, not to resume practice in dissection, but to know what he sees, filing an intelligent history away with the chart, and giving the relatives a reasonable explanation of death.

The disinfection of the buildings, clothing, mattresses, etc., naturally falls under this department, as well as tests for bacteria, in the operating-room or on the surgeon's or nurse's hands. The pathologist should, according to the plan of the grounds and the duties of each employe, form a system to prevent transmission of disease.

To a superintendent who is unfamiliar with modern laboratory tests, the materials and apparatus to buy and the place to buy them are as of another world. The medical board should present to him a standard in each, and further, he can acquaint himself with what the best hospitals are doing by "questionnaires." It does not pay to buy cheap substitutes, nor on the other hand to support some big firm's "good name." But the laboratory supplies must be measured per test, kept clean, not given away nor wasted, and replaced if broken, no matter how expensive. The superintendent needs to visit the laboratory as often as the kitchen.

Publicly displayed on the walls should be the hospital method of destroying the virulent germs of cerebrospinal meningitis, typhoid, pneumonia, tuberculosis, and others, as they come in on slides or in cups. Otherwise the laboratory will be the distributing point of most

destructive material to all parts of the institution. In small places, where the duties of the servants are very varied, a kitchen porter who empties the laboratory garbage can and then helps the cook with the dinner wagons is going to spread half a dozen diseases helter-skelter, by the unconscious nurses' hands. It is not sufficient merely to clean up the slides, but the place where they lay and the hands that handled them. Similarly, if the doctor examines a sputum specimen for tuberculosis, and then picks up some specimen bottles which go back to the ward, he is passing those germs on to the night nurses' or careless night orderly's hands.

The best of technique will prevent the interne from the laboratory from entering the operating-room, the delivery-room or the obstetrical ward. He is during that service a lonesome pariah, but is aware that he is laying a solid foundation for a future substantial practice, built up on modern scientific, prophylactic, humanitarian principles.

AN ACT TO AMEND THE ONTARIO MEDICAL ACT

HIS MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:—

1. This Act may be cited as *The Ontario Medical Amendment Act, 1915.*

2. Subsection 1 of section 21 of *The Ontario Medical Act* is repealed and the following substituted therefor:—

21.—(1) The council may admit to registration medical practitioners duly registered in the medical

> register of Great Britain (or in any register of persons entitled to practise in any part of the British Empire) upon such terms and conditions as the council may from time to time deem expedient, having regard not only **to the qualification of applicants for registration,* but also to such rules, regulations and conditions as may be from time to time in force regarding the reciprocal admission to the medical register of Great Britain or other register as aforesaid of medical practitioners registered according to the provisions of this Act.

The above represents what would appear to be the only amendment to the Ontario Medical Act that will be passed during the present session of the Provincial Legislature. We flatter ourselves just a little that the editorial stand we took in our February issue has borne effect and that the *qualification* of applicants for registration in Ontario is to be specially considered, in order to prevent the Province being perhaps overrun with an inferior class of medical practitioners from the Old Country.

We must add here that we were greatly disappointed in reading the amendment to find not as much as an allusion to reorganization of the Medical Council, so long promised. What, may we ask, has become of the idea? Did it merely flit across our path as a shadow, or will it ever become a reality? What explanation can the Committee offer to their constituents for their non-fulfilment of duty? We know that some time ago the excuse was made that the proposed reorganization had been held up on account of certain proposals made by the late Premier regarding medical affairs in Ontario, which,

* The italics are ours.

too, have been lost in the shuffle. Why don't the members of the Ontario Medical Council come right out and say that the whole proposal as to reorganization was a bluff and that they are too fond of the twenty dollars a day to let go? Surely it would be more honest to do this than to try any longer to pull the wool over the eyes of the Ontario medical profession.

Canadian Journal of Medicine and Surgery

Editors

Surgery:

N. A. POWELL, M.D., C.M., Professor of Medical Jurisprudence, Medical Department, University of Toronto; Senior Assistant Surgeon in charge, Shield's Emergency Hospital.

Clinical Surgery:

ALEX. PRIMROSE, M.B., C.M., Edinburgh University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University; Surgeon Toronto General Hospital; and HERBERT A. BRUCE, M.D., F.R.C.S., Eng., Surgeon, Toronto General Hospital.

Orthopedic Surgery:

B. E. MCKENZIE, B.A., M.D., Toronto; Surgeon to the Toronto Orthopedic Hospital; ex-President of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Orthopedic Surgeon, Winnipeg General Hospital; Lecturer in Orthopedic Surgery, Manitoba Medical College; Member of The American Orthopedic Association. W. E. GALLIE, M.D, Associate Surgeon, Hospital for Sick Children, Toronto.

Militia and Naval Medical Services and Ambulance:

J. T. FOTHERINGHAM, M.D., Lieutenant-Colonel, Army Medical Corps, Associate Professor of Medicine and Clinical Medicine, University of Toronto; Associate Collaborator CHAS J. COPP, M.D, C.M., Hon. Sec. Provincial Council of Ontario, St. John Ambulance Association.

Medical Jurisprudence and Toxicology:

ARTHUR JUKES JOHNSON, M.B., M.R.C.S. Eng., Coroner for the City of Toronto; Surgeon Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P., Lond., Ex-President of the American Medical Editors' Association; Associate Coroner, City of Toronto.

Hospital Administration:

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Clinical Medicine:

ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine, Toronto University; Physician, Toronto General Hospital; LEWELLYS F. BARKER, M.D., Professor of Medicine, Johns Hopkins University, Baltimore, Md. H. B. ANDERSON, M.D., Toronto; Associate Professor of Clinical Medicine, University of Toronto.

Mental and Nervous Diseases:

N. H. BEEMER, M.D., Mimico Insane Asylum; CAMPBELL MEYERS, M.D., M.R.C.S., L.R.C.P. (London, Eng.), Private Hospital, Deer Park, Toronto.

Gynecology and Obstetrics:

B. P. WATSON, M.D., Edin., F.R.C.S., Edin.; Professor of Gynecology and Obstetrics, University of Toronto; Gynecologist and Obstetrician, Toronto General Hospital; GEO. T. MCKEOUGH, M.D., M.R.C.S., Eng., Chatham, Ont.; C. F. MOORE, M.D., Toronto; and A. C. HENDRICK, M.A., M.B., F.R.C.S. Edin., Demonstrator in Gynecology, University of Toronto; Assistant Gynecologist, Toronto General Hospital.

Pathology:

J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, University of Toronto.

Ophthalmology:

J. M. MACCALLUM, M.D., Toronto, Senior Assistant Eye Department, Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Nose, Throat and Ear:

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

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Original Contributions

UTERINE HEMORRHAGE DURING PREGNANCY*

BY KENNEDY C. M'ILWRAITH, M.B., TORONTO.

Mr. President, Ladies and Gentlemen,—

I have been asked to give a clinical view of this subject, but even with that limitation there remains so much that might be said that I cannot hope to deal with it exhaustively, and shall therefore speak only of some outstanding instances. In the hemorrhages of early pregnancy, the point in my experience which has impressed me most is the difficulty of distinguishing between the hemorrhage of abortion and the external hemorrhage from ectopic pregnancy. As instances of this difficulty I may cite a case which I saw some years ago with the late Dr. Cleland. I gave it as my opinion that the ovum was all away, and was astonished to learn some days later that the patient had afterwards been operated upon by my late colleague, Dr. Ross, and an ectopic pregnancy removed. On the other hand, there was the case which I sent into the pavilion with a diagnosis of ectopic pregnancy which my late colleague declared to be intra-uterine. This woman he subsequently operated upon at full term, removing an ectopic fetus. In each of these cases carelessness was at the root of the error—the patient was not examined under an anesthetic. On another occasion a woman came to my clinic at the hospital with a diagnosis of abortion made by her physician and herself—she had had one or two previous experiences. Examination under anesthesia revealed a mass to one side of the uterus which the laparotomy showed to be an ectopic. Curiously enough the tube on the other side showed a perforation, which suggested that possibly some of

*Read at the meeting of the Academy of Medicine, Toronto, Feb. 2, 1915.

her other experiences had also been ectopic gestation. On another occasion I diagnosed an ectopic gestation and had it removed, though patient stoutly denied the possibility of conception at all. Which shows that histories are not always reliable.

When fever is present we may still have to decide between septic intra-uterine abortion with infection of the parametritic tissue and an ectopic pregnancy in which the blood clot has become infected, or in which absorption of the blood itself has given rise to temperature.

Now, of these two affections—abortion and ectopic pregnancy—abortion is, of course, by far the commoner, but the above experiences and many similar ones have led me to the conclusion that *no case of early uterine hemorrhage in pregnancy should be treated, either actively or passively, until a careful bi-manual examination of the uterus and adnexa has been made.* Typically the hemorrhage in abortion is bright-red in color and often free in amount, while the external hemorrhage in ectopic gestation is not profuse and is dark in color—but there are many atypical cases. Typically the pains of abortion are cramp-like and gradually increasing in severity, while those of ectopic gestation are sudden and very severe rather than continuing, but there are many atypical cases here too. In early pregnancy the fetus and amnion often escape first, leaving the chorion and more or less formed placenta to follow, and this "afterbirth" may be confused with the decidua which is sometimes shed in cases of ectopic. They may be distinguished by floating them out in water, when the branched and frond-like villi of a chorion differ sharply from the shreddy covering of the decidua. But of all the means of diagnosis the careful bi-manual examination is by far the most important.

When once the diagnosis is made the treatment of ectopic should be by laparotomy. As to the treatment of abortion I only wish to make one remark, and that is that I do not consider that a case of abortion has been adequately treated until the attendant has assured himself that the uterus is empty by exploring it with his finger. I am afraid that I may not carry the entire opinion of this meeting with me on this point, but I have had so many cases come under my care in which

the attendant has not taken this precaution, with consequent hemorrhage, abortion, menorrhagia, etc., that I feel sure it is correct.

From the end of the third to the end of the sixth month we have a period that is usually free from hemorrhage. Accidental hemorrhage and hemorrhage from placenta previa or molar pregnancy are the usual causes. The first two should be treated as one would treat ordinary cases of threatened abortion. In molar pregnancy, or cystic degeneration of the chonionic villi, the diagnosis is based on the rapid increase in the size of the uterus, the thin bloody discharge, and the passage of cysts. In this case the uterus should be emptied, dilatation being secured by tents and gauze packing in the cervix, and evacuation secured by clearing out the uterus with the fingers. The reason for emptying soon is the danger of malignancy of the growth.

In the last three months of pregnancy the hemorrhages we have chiefly to fear are accidental hemorrhage, open and concealed, and hemorrhage from placenta previa. Concealed hemorrhage I prefer to treat with large doses of morphine hypodermically, believing that the danger from shock is greater in these cases than the danger from the hemorrhage. Where the hemorrhage is open and the membranes unruptured I use the Rotunda treatment of tight packing. When the membranes are ruptured I should stimulate labor by pituitary extract. In placenta previa, when the os will admit two fingers and the child seems easily moveable, I do Braxton Hicks' version and bring one leg through the placenta, securing contractions by the administration of pituitary extract. Where the os will admit two fingers but the child does not seem easily movable I prefer to insert a Voorhees' or Champetier de Ribes' bag through the placenta.

The reason I prefer a version to the use of a bag when possible is that in order to secure sufficient dilatation one has to use a large-sized bag, and this is apt to displace the presenting part, or to cause great pain by the distention of the uterus which it causes. When the os will not admit two fingers I prefer to do an abdominal Cesarean section. I have seen one woman twice with this condition in consultation with Dr. Perfect. In the first case the os was open and the child presenting

by the breech. We brought down a leg and left the course to nature, both mother and child being saved. In the second case the child presented by the head and the os was closed. We did an abdominal Ceserean section, and again saved both mother and child. Only about six weeks ago I did Ceserean section under the described conditions and saved both mother and child. Abdominal seems to me preferable to vaginal section in these cases, as we thereby avoid the placental site.

Intra-partum hemorrhage has in my experience been usually due to low implantation of the placenta, but in one case the cause seemed to be extreme shortness of the cord. It does not seem possible to diagnose the latter condition until after birth, and one can but endeavor to hasten birth by administration of pituitary extract.

The avoidance of post-partum hemorrhage I believe to be largely a matter of prophylaxis. Those who have low systolic blood pressure before or during labor are apt to suffer from post-partum hemorrhage. I have one patient who suffered at the delivery of her first two children, but who escaped at the delivery of her next two by being treated for a month before delivery with small doses of ergot, strychnine and digitalis, as recommended, I think, by More Madden. I believe that beforehand treatment with pituitary gland substance may prove to be equally efficacious. This substance may be given during pregnancy, without producing abortion, as was proven in one of my cases in which, for other causes, it was given at intervals throughout the whole of pregnancy, and a healthy child was born at full term. During labor I believe that the best prophylaxis against post-partum hemorrhage is secured by the administration of a small dose—say ½ c.c.—of pituitary extract intramuscularly, followed, after the birth of the placenta, by an intramuscular injection of aseptic ergot. The administration of pituitary extract towards the end of labor, without the subsequent use of ergot, has not infrequently produced tight contraction for a while, followed later by relaxation and somewhat free flowing. To the mechanical means which are used for the control of post-partum hemorrhage when it actually occurs I have nothing new to add. To refer to them before this audience would be akin to reciting the Greek alphabet to a classical scholar.

Militia and Naval Medical Services and Ambulance

THE UNIVERSITY OF TORONTO AND THE PRESENT WAR

Though the military organizations of the Canadian colleges were in a much more rudimentary condition than those of the British universities, a large contribution has already been made to the Army for the present war from their graduates and undergraduates.

The following is an account of what has been done by the University of Toronto:

First Contingent.

Officers—Lt.-Col. C. H. Mitchell, B.A.Sc., member of the Board of Governors; Lt.-Col. R. D. Rudolf, Professor of Therapeutics; Lt.-Col. W. A. Scott, Associate in Surgery; Major P. Goldsmith, Demonstrator in Oto-Laryngology; Captain G. R. Philp, Demonstrator in Anatomy; Captain P. K. Menzies, Assistant in Clinical Surgery; Captain G. A. Cline, Instructor in University Schools; Captain C. E. Cole, Demonstrator in Therapeutics; Dr. B. E. Clutterbuck, Assistant in Gynaecology; Dr. A. J. Mackenzie, Demonstrator in Medicine, and Mr. E. Owen, Lecturer in German.

According to our most recent information there are, besides the members of the staff, 134 graduates and 86 undergraduates, and of these 137 are officers and 83 privates. The chief electrician and several of the laboratory assistants are also on service, and their places are being kept for them. Professor de Champ and Messrs. Balbaud and Bibet of the Department of French in University College have been serving with the French Army since the beginning of the war.

Second Contingent.

Officers—Lt.-Col. Fotheringham, Associate-Professor of Clinical Medicine, is Chief Medical Officer. Other members of the staff who have been giving their time in preparng for its mobilization are: Captain J. A. Amyot, Professor of Hygiene; Lt.-Col. J. A. Roberts, Demonstrator in Clinical Surgery; Lt. G. B. Strathy, Demonstrator in Clinical Medicine; Lt. Bruce Robertson, Assistant in Pathology.

At present our information is quite incomplete, but we have the names of 53 graduates and 63 undergraduates who have been accepted.

Action of the Senate and Faculties.

At the opening of the session the Caput, Senate and the Faculty Councils passed regulations to provide that standing should be granted to those who by reason of enlisting had been unable to take their September supplementals; also, that those who had enlisted or who would do so, should be shown the utmost consideration at the end of the session that the University's duty to the public in maintaining professional standards will allow.

It was further decided to discontinue all teaching and laboratory work after four o'clock in the afternoon in order to enable students to take the courses of drill and instruction required by the regulations of the Officers' Training Corps.

In view of the probable establishment of an Officers' Training Corps in the University, a score of junior members of the staff began about September 15th to take drill and instruction to qualify themselves to become officers in the new corps. About October 20th authorization was received from the Militia Department. Dr. W. R. Lang, Professor of Chemistry, who with the concurrence of the Board of Governors had volunteered for active service, but was appointed Instructor for this Military Division, was made Colonel of the new corps. Messrs. C. S. McVicar, A. D. Le Pan, G. N. Bramfitt, C. H. C. Wright, R. H. Hopkins, G. H. Needler, F. C. A. Jeanneret, L. Gilchrist, M. W. Wallace, G. O. Smith, C. N. Cochrane, C. V. Massey,

G. M. Smith, E. J. Kylie, G. S. Brett, E. S. Ryerson, A. F. Coventry, G. Gallie, W. F. McPhedran, R. G. Armour, D. Graham, C. R. Young, D. G. Hagarty, A. M. Thomas, A. W. McConnell, W. M. Treadgold, B. M. Morris, H. H. Madill, J. R. Cockburn, J. R. Mitchener, V. E. Henderson, H. R. Hopkins, A. R. Leggo, W. S. Wallace, H. G. Manning, all except three being members of the staff, have been appointed officers. The students enrolled enthusiastically, and though the strength authorized as yet is only 1,000, over 1,800 have been taking drill.

On Friday, January 22nd, 1,500 students with their officers were reviewed by His Royal Highness the Duke of Connaught. He addressed them in part as follows: " I wish to express to you my very great satisfaction with the splendid turnout you have given me this evening. When I looked at you and saw how you stood to attention and the admirable way in which you marched past, I saw that your work since you were formed, a very few months ago, has been performed with a will, and I can honestly say that I have never seen better results than you have shown me to-day.

" What pleases me still more is the splendid example you young gentlemen are showing to the whole of Canada. You have come forward at a moment when every man that is able to do anything to help the Empire in a time of stress is needed, and you have done so readily and in a most efficient manner.

"As an old soldier and as Governor-General of Canada, I wish to say that no parade that I have seen—and I have seen many lately—has given me more satisfaction than your parade this evening."

The Women Students.

At the same time the women students of the University have shown their determination to be of service by occupying the hours from four to six in the afternoon, when there is no instruction given in the University, with sewing and other work for the Red Cross Society.

The base hospital which has been accepted by the War Office as the result of an offer made by the University of Toronto will be of as high standard of efficiency as it is possible for the Uni-

versity authorities to make it. The hospital will consist of 1,040 beds. The staff will be composed of one Colonel, four Lieutenant-Colonels, eight Majors, twenty-six Captains, two Quartermasters, four warrant officers, two matrons, eighty-four nursing sisters and two hundred and eighty-four non-commissioned officers. It is, therefore, necessary to provide forty-five men from the present staff of the medical faculty of the University of Toronto. Nearly eighty University men volunteered their services, so that no difficulty was experienced in providing these officers. Similarly a prompt response was made by the nurses, and over one hundred nurses, fully trained, volunteered.

The Government will grant the necessary equipment which is called for by military regulations, but no provision is made for the equipment of laboratories. All great modern hospitals (and this is a very large hospital) must have laboratory facilities if the work is to be efficiently carried out. The laboratories cost a large amount of money, and it is estimated that at least $25,000 is necessary for this purpose. Fortunately men are available to work in these laboratories whose services will be invaluable, but unless the equipment is forthcoming the work cannot be done. An urgent appeal is, therefore, made to the public for this financial assistance.

The efficiency of this hospital should be secured beyond all peradventure. Efficiency means so much to the men returning wounded from the trenches, and the bulk of these probably our own Canadian fellow-citizens. The men and women who go with the hospital are all well trained and capable of doing splendid work. The fact that they all come from one source—namely, the University of Toronto and the hospitals affiliated with the University—makes for efficiency in a very special manner. The members of the staff are accustomed to work together, and each knows the other's possibilities for special work and the limitations. It is, therefore, possible to organize in a way which will produce the very best results, and it is hoped that this appeal for the necessary laboratories will meet with a prompt response and that the sum of $25,000 will be subscribed without delay. A similar appeal to the citizens of Montreal for the laboratory equipment of a 500-bed hospital

from McGill met with speedy success, and the amount asked for was immediately forthcoming. It is hoped that the citizens of Toronto will be equally generous. All subscriptions may be sent to Dr. A. Primrose, Secretary of the Faculty of Medicine, University of Toronto.

The following, it is expected, will be the personnel of Number four General Hospital, though it is quite possible that there will be a few minor changes Dr. J. A. Roberts, Colonel; Dr. W. B. Hendry, Major; Dr. N. J. L. Yellowlees, Captain.

The Surgical Staff will consist of Drs. Alex. Primrose, F. N. G. Starr and Walter McKeown (equal Military and Surgical rank), Dr. J. Malloch, Dr. Marlow, Dr. B. P. Watson, Dr. E. S. Ryerson, Dr. George E. Wilson, Dr. Robert Gaby, Dr. F. W. Watts, Dr. J. G. Gallie and Dr. H. Wookey.

The Medical Staff will consist of Drs. Andrew Gordon and Graham Chambers (equal Military and Medical rank), Dr. Chas. S. McVicar (Secretary Registrar), Drs. Donald McGillivray, Harold Parsons, D. K. Smith, Geo. F. Boyer, R. G. Armour, J. H. McPhedran and S. R. D. Hewitt.

Dr. Gilbert Royce will have charge of the Nose and Throat Department; Dr. W. E. Lowrie will have charge of the Eye Department; Dr. Robert Pearse will be Chief in Genito Urinary work; Dr. J. A. Amyot will be placed in charge of Sanitation.

The Laboratory Staff will be composed of Drs. Duncan Graham, N. C. Sharpe, A. A. Fletcher and C. J. Imrie. Dr. Geo. Gow will be the Dental Surgeon. To the date of going to press the Anesthetist had not been decided upon, nor had the Quartermasters been appointed.

A staff of seventy-three nurses are being taken from the different hospitals. It is expected that Number four General Hospital will leave for the front about the middle of April.

No. 2 Clearing Hospital Complete.

The mobilization of No. 2 Clearing Hospital, which has been in progress out at the old General Hospital on Gerrard Street for some weeks past, is practically complete and ready to leave for the front at a moment's notice. It consists of the

following officers and staff, including the graduating class of the Medical College, fourteen members of the fourth year medicals, four of the third year, and two graduates who have received the degree of doctor of dental surgery. The officers are: Lt.-Col. G. S. Rennie, Lt.-Col. J. E. Osborne, and Major R. Davey, all of Hamilton; Major F.W. E. Wilson, of Niagara Falls, and Capt. George S. Strathy, Capt. H. L. Jackes, Capt. L. B. Robertson, and Capt. G. B. Strathy, quartermaster, all of Toronto.

The medical staff to accompany this hospital consists of the following fifth year medicos who were given, the last week of February, the degree of Bachelor of Medicine, and now receive automatically the rank of lieutenant: Gerald Allison, Stanley Stafford Ball, Arthur McKnight Bell M.A., Leeming Anderson Carr, Henry Arthur Cates, John Chassels, Frederick Walter Clement, Richard Collier Coatsworth, B.A., Thomas Harold Crews, Donald Thomas Fraser, B.A., Frederick Russell Gillrie, Morley Edward Gorman, Harold Parrish Hamilton, Maurice Round Helliwell, William Wray Hodge, B.A., Herbert Carl Martin, Athol Alexander Moon, Paul Michael O'Sullivan, M.A., Reginald Paul, Harry Roy Smith, Thomas Harold Douglas Storms, B.A., Stanley Young Walsh, David Edmund Staunton Wishart, B.A.

In addition there are the following fourteen fourth year medicos: W. E. Hodgins, A. C. Norwich, A. R. Hagerman, A. E. Macdonald, W. C. Connell, J. A. Stanley, A. B. Jackson, A. R. Lindsay, L. R. Hill, P. A. Sarjeant, M. J. Wilson, J. H. Sharpe, G. Scullard, W. B. Rutherford; and the following third year men: H. C. Cruikshank, J. S. Reid, G. F. Sykes, and J. H. Howell. The two doctors of dentistry, who received their degrees, are Richmond Henry Atkey and Albert Gordon Lough. Captain L. E. Williams, formerly a resident member of the staff of the Toronto Asylum, is also accompanying the hospital. Dr. Williams came to the city originally from St. Thomas.

With the present staff of fifty-two officers and men there will go a large number of service men, bringing the final complement to seventy-seven in all, but these have not all been selected. They will consist of carpenters, cooks, bricklayers,

one barber, and several mechanics. Some of these are already under orders at the old General, and are being utilized in the construction of immediate needs.

The hospital equipment will not be provided until the men reach England, and no patients will be treated until the clearing hospital reaches the front. The duties of this hospital differ entirely from those of the University base hospital. The clearing hospital carries with it no nurses, and follows closely the line of battle, establishing its temporary camps in the wake of the ambulances. The wounded are brought here first, and after treatment are removed to the base hospitals. Up to the date of going to press, no idea has been given the officers of when they will leave for the front.

Obituary

DR. WILLIAM BRITTON

One of the most widely known and highly respected members of the medical profession passed away at 17 Isabella Street on March 11th in the person of Dr. William Britton, one-time President of the Ontario Medical Association, and until three years ago prominently connected with many medical organizations. Three years ago Dr. Britton was forced to retire and go to Prince Albert, Sask., where he endeavored to regain his health. Death took place quietly during a visit to his brother-in-law, Dr. C. F. Moore. He was in his 63rd year.

The late Dr. Britton was a graduate of the University of Toronto and received his earlier education in Brantford, his birthplace. Mrs. Britton and a daughter, Mrs. J. P. M. Sibbald, of Prince Albert, Sask., survive. Dr. Frank Britton, of Brantford, is a brother, and Miss Nellie Britton, of Brantford, and Mrs. Rothwell of Listowel, are sisters. The funeral took place privately on March 13th from 17 Isabella Street to Mount Pleasant Cemetery.

Society Proceedings

THE ONTARIO MEDICAL ASSOCIATION

It has been decided that the meeting of the Ontario Medical Association will be held in Peterboro on May 25, 26, 27 and 28 next, and that the Provincial Health Officers' Association, under the presidency of Dr. Hall, of Chatham, will hold its meeting in Peterboro also during the same week. The joint meeting of the two Associations will secure a very large attendance of the profession throughout the Province, and will probably result in single fares being obtained for the delegates.

The accommodation for these meetings will be unusually good, as the committee of arrangements have succeeded in obtaining the use of several large halls, as well as of the Armouries, all of which lie side by side, and are but a short distance from the hotels.

The Committee on Papers and Business, under the direction of Drs. H. J. Hamilton, of Toronto, and G. C. Cameron, of Peterboro, has already had several meetings, and the programme is in an advanced state. It is expected that about ten papers will be read in each of the main sections, and the names of readers already secured ensure a programme of great interest.

On the evening of the first day, there will be a public welcome, given by the City of Peterboro, and a public address on some health topic will follow. The President's address will come on the second day.

Provisional Programme.

Tuesday, May 25—Registration.

Wednesday, May 26—Morning Registration. Afternoon Business, General Session. Evening, General Session; President's Address; Address in Medicine.

Thursday, May 27—Morning, Sectional Meetings. Afternoon, General Session; Business Meeting; Address in Surgery. Evening, General Session; Symposium on Heart.
Friday, May 28—Morning, Sectional Meetings. Afternoon, General Session Business Meeting.

CANADIAN MEDICAL ASSOCIATION

In spite of the unsettled political situation, plans for the forty-eighth annual meeting to be held in Vancouver, B.C., July 6, 7, 8 and 9, are maturing excellently. Two symposia, viz., Chronic Arthritis and Chronic Renal Infections have been selected, and many prominent men in Canada and the United States have signified their intention of taking part. The Panama Exposition and the meeting of the American Medical Association the last of June in San Francisco will materially help our meeting. Rates and further information will be announced later.

MEDICAL SOCIETY OF THE STATE OF NEW YORK

The Medical Society of the State of New York will hold its hundred and ninth annual meeting in Buffalo, April 27-29. On account of the European war, this will probably be the largest medical meeting of the year, except perhaps that of the A.M.A. in San Francisco. Through the co-operation of the military authorities, the meeting will be held in the 65th Regiment Armory—not the old arsenal, now the City Convention Hall. This armory is one of the largest in the country and will afford accommodations for all activities of the meeting, except the annual banquet. A restaurant will be conducted in the building, there will be ample space for commercial and scientific exhibits, and an abundance of halls for general and section meetings. Even an automobile park will be provided on the armory grounds. No one need leave the building except to sleep, unless possibly to attend lectures to the laity which will be given by prominent visiting physicians and which will probably be held in the Masten Park High School across the street.

The choice of the armory is fortunate in another sense, as indicating the organization of the State Society as an arm of the state government. On the last night of the meeting a regimental parade and review by Gen. Gorgas will be held.

MACOMB COUNTY MEDICAL SOCIETY

Mount Clemens, February 16.

The medical profession and the business men of Mount Clemens are determined to bring their wonderful waters to the attention of the American public.

Two hundred of the prominent residents of Mount Clemens, including twenty-four members of the Macomb County Medical Society, met at the annual banquet of the Business Men's Association of the city on the evening of February 25th.

There were speeches by some of the editors of the Detroit newspapers, and some of the medical journals of the middle west, and by prominent citizens of Michigan outside of Mount Clemens. Senator David FitzGibbons of Port Huron presided at the dinner and made a splendid oration, taking for his subject the opportunity that Mount Clemens now has in view of the European war, and the prohibited bath areas of Germany, France, Austria and Switzerland, to take the place of these famous resorts as the great American bath-cure.

Dr. John A. Hornsby, editor of *Modern Hospital* of Chicago, addressed the audience on the subject of the scientific necessities of the modern bath cure. Dr. Hornsby insisted that there is no spring or water-cure in this country that is properly equipped to do the scientific work to take the place of the cures of Europe; he said the baths of the United States and Canada contain everything in the way of curative agencies that the European springs contain; but that, up to this time, the European water-cures contain another factor, viz., a group of scientific men around each of the cures to whom Canadian and American physicians could send their patients in the expectation of scientific service, both in diagnosis and treatment.

He insisted that the bath did not always mean that the patient must take a "cut-and-dried" routine bath—that there were conditions of the patient that demanded a careful diagnosis, and that called for a special prescription, whether it be baths, or some form of massage, special diet, exercise, rest, or other treatment.

At the end of the evening the new board of directors of the Business Men's Association was announced, and in a preliminary meeting it was agreed that Dr. Hornsby's ideas would be given immediate and prompt attention; and that a scientific laboratory should be immediately equipped to do the necessary work for the medical men in the community, upon which these, in turn, could rely for diagnosis; and it was further agreed that special dietaries should be equipped in a number of the hotels and "baths" that would make it possible for the doctor to get precisely what he wanted for his patient.

The dinner was a most impressive occasion, participated in by some of the leading men of Michigan, and it was decided to reach out at once to place Mount Clemens at the head of the curative institutions of this country. It was agreed that in order to do so an organization must be immediately put into effect that would give Mount Clemens the scientific standing now maintained only by the great European cures.

BELGIAN RELIEF FUND

A meeting of the Canadian Central Executive Committee for the relief of the Belgian Medical and Pharmaceutical professions was held February 19th in the Academy of Medicine. Subscriptions to this most worthy object of relieving the medical men in Belgium are commencing to flow in. $4,000 has been already subscribed, and the Treasurer of the fund, Dr. Wishart, 47 Grosvenor street, has forwarded $1,500 to the Central Executive for Great Britain for distribution. It was thought best to co-operate with the English Committee, of which Sir Rickman Godlee, President of the Royal College of Surgeons, is the Chairman.

Sir Rickman wrote as follows to Dr. Bruce, Chairman of the Canadian Committee:

"As to the distribution of funds, it would be as difficult for Canada to ensure that proper use is made of any immediate personal relief they may send to Belgium, either in kind or money, as it is for the Mother Country. We have to do what we can in that way through the instrumentality of the International Commission for relief in Belgium which is chiefly in the hands of the United States, who are acting with great energy and efficiency in this direction. It would be highly gratifying to our Committee if the duty of distributing the Canadian funds was intrusted to it, but this is a matter for the Canadian Committee to decide.

"Whatever course the Canadian Committee adopts it is earnestly hoped that a considerable proportion of the collected funds will be reserved for the important purpose of reinstating the Belgian doctors and pharmacists at the termination of the war, or when Belgium can be reoccupied by its own population. When that time comes it will be well for the Canadian Committee, that of the United States, and other Committees to consult and co-operate with one another in order to avoid the waste that may result from overlapping, if each body were to work independently of the others."

Personals

We tender our sympathy to Dr. and Mrs. J. H. McConnell, Dundas Street, on the death of their infant child on March 8th.

Congratulations to Dr. and Mrs. W. E. Gallie, 15 Poplar Plains Road, on the birth of a son and heir.

Dr. Archibald Montgomery died very suddenly while on a visit to his father on Isabella Street on March 10th.

Dr. Harold C. Parsons, Toronto, was married on March 17th, 1915. Dr. Herbert Bruce acted as groomsman.

The Physician's Library

The Backward Baby. Prize Essay by Dr. Herman B. Sheffield, New York: Instructor in Diseases of Children, New York Post Graduate Hospital. New York: Rebman Company, Herald Square Building.

This volume is very handsomely got up by Rebman Co., quite worthily of its contents. It is a very masterly technical treatise which Dr. Sheffield presents, showing his acute observations in the living subject from every angle, as well as in a host of autopsies, hampered though he may have been by lack of pioneers in this sort of literature. It is a book whose contents might be condensed into a primer for the "man in the street," since it presents potent arguments for temperate, sane "plain living and high thinking" by parents for the sake of their offspring.

Many physicians and nurses get into the habit of charging every mental disease and many other abnormalities to syphilis. But Dr. Sheffield gives us the comforting assurance that such is not the case.

The tabulated reports are very complete, on physical signs of development, and the classification of symptoms of amentia is very clear. Many of the studies, for instance, the habits of a normal child up to three years, might wisely be incorporated in text books for medical students and nurses, since they are so often absolutely ignorant regarding the development of a healthy child.

The subjects dealt with are cretinism, hydrocephalus, amaurotic idiocy, prophylaxis and treatment, both medical and surgical, the latter by thyroid-transplantation.

This book should be owned by every physician and nurse, especially in the institutions for care of the feeble-minded.

Rose and Carless's Manual of Surgery for Students and Practitioners. Ninth edition. Revised by Albert Carless, M.B., M.S. Lond., F.R.C.S., Professor of Surgery in, and Surgeon to, King's College Hospital, London, formerly Examiner in Surgery to the Universities of London, Glasgow, Manchester, Liverpool, and Leeds, Consulting Surgeon to the King Edward's Memorial Hospital, Ealing, to the St. John's Hospital, Twickenham, etc. New York: William Wood & Co. 1914.

The ninth edition of this important work on surgery is materially in advance of its predecessor. Some medical authors sometimes show too great a tendency to revise a book by merely rewriting about one chapter, letting the balance take care of itself. In Mr. Carless' case such does not apply, as he has gone over the eighth edition carefully, and has not only added a good deal of new material, but largely rewritten the volume, bringing it, in every sense of the word, up to date. The book, as it now appears, is a modern work on surgery, containing the latest views held as to the best procedure in different surgical conditions.

The Pocket Formulary for the Treatment of Disease in Children. By Ludwig Freyberger, J.P., M.D., Vienna; M.R.C.P., London; M.R.C.S., Eng., Barrister-at-Law, late Hon. Physician, St. Pancras and Northern Dispensary. Fourth edition revised and enlarged, with an appendix on Poisons, their symptoms and treatment. New York: Rebman Company, Herald Square Building, 141-5 West 36th Street.

This is an exceedingly convenient little book and contains stacks of information in a concise form. It should prove of great value to the average busy practitioner who wants to refer to it in a hurry for certain specific information regarding the treatment of some conditions in a child and which, for the time being, he cannot look up in a larger work. The appendix on poisons adds materially to its value. W.A.Y.

A Practical Medical Dictionary of words used in Medicine, with their derivation and pronunciation, including Dental, Veterinary, Chemical, Botanical, Electrical, Life Insurance and other special terms; Anatomical Tables of the titles in general use, and those sanctioned by the Basle Anatomical Convention; Pharmaceutical Preparations, official in the United States and British Pharmacopœias and contained in the National Formulary; Chemical and Therapeutic Information as to Mineral Springs of America and Europe, and comprehensive lists of Synonyms. By THOMAS LATHROP STEDMAN, A.M., M.D., Editor of "The Twentieth Century Practice of Medicine," of the "Reference Handbook of the Medical Sciences," and of the "Medical Record." Third revised edition. Illustrated. New York: William Wood & Co. 1914.

Perhaps the best recommendation that can be meted out to any book is that the edition became soon exhausted. This was the case with Dr. Stedman's Practical Medical Dictionary, showing that it was, and is still, appreciated by the profession. The third edition is a crackerjack and contains "all the new terms which have established their right to a permanent place in the language of medicine."

Child Training as an Exact Science. By GEORGE W. JACOBY, M.D. With full bibliography and thorough index. 384 pages, 15 full-page illustrations. $1.50, net; by mail, $1.62. Funk & Wagnalls, Publishers, New York.

While it is claimed that this book will be of "immense usefulness to the . . . parent . . . and in the home," it is to be questioned if it is not too technical for the average layman. To a limited extent it is an arraignment of that unscientific pedagogic theory of standardization, by which any deviation as regards ability or conduct, from accepted tradition, on the part of the child, is considered either abnormal or pernicious.

As a handbook for the physician, the school nurse and the thoughtful teacher, the book can be recommended as a comprehensive treatise on the development and training of the mentally deficient child.

Diseases of Bones and Joints. By Leonard W. Ely, M.D., Associate Professor of Surgery, Leland Stanford University, San Francisco, Cal. New York: Surgery Publishing Co.

This little book is a pleasure to read. In the midst of the mass of repetitions which are being turned out constantly by the publishers, Professor Ely's book comes as a scientific, logical and withal entertaining review of an old subject, and it contains just enough that is new in theory and proven fact to make it an important addition to our knowledge. It presents the anatomy, physiology and pathology of bones and joints, acute and chronic arthritis of various types, ankylosis, diseases of shafts, acute osteomyelitis, chronic inflammations in the bone shafts, new growths in bone, etc. In the review of the anatomy and physiology of bones and joints the author discusses the relation of each of the structures involved to the process of inflammation and concludes that the marrow in the case of the bones and the synovia in the case of the joints are the structures to be most carefully considered. He advances a theory, which seems very reasonable, that tuberculous disease of bones and joints practically always attacks the cancellous bones of the ends of the shafts and of the sphysis, in children, because the marrow in this locality is composed of lymphoid tissue, a tissue which elsewhere shows its vulnerability to tuberculosis. The book deals rather with principles than with a review of detail, and will be of more value to the advanced student than to the practitioner in search of tips in diagnosis or treatment. The work is profusely illustrated, particularly with photo-micrographs, in illustration of the author's study of the pathological changes in the diseased joints. Undoubtedly the book will be well received by the profession.

Handbook of Pharmacology. By Charles Wilson Greene, A.B., A.M., Ph.D., Professor Physiology and Pharmacology, University of Missouri; Member American Association of Anatomists, American Physiological Society, Society of Pharmacology and Experimental Therapeutics; Fellow of the American Association for the Advancement of Science; Associate of the American Medical Association, etc., etc. With 70 illustrations, including many new and in colors. New York: William Wood & Company. 1914.

A compilation of the action, physiological and pharmacological, of the various drugs in therapeutic use. One is not bothered with a lot of detail regarding medicinal agents, but the author gives concisely the information the busy practitioner needs. To the student in medicine it will be a most valuable book. A.J.H.

The Practical Medicine Series, comprising ten volumes on the year's progress in Medicine and Surgery. Under the general editorial charge of Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the North-Western Medical School. Robert T. Vaughan, Ph.B., M.D. Vol. VI. General Medicine. Edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A.M., M.D., Professor of Medicine, Illinois Medical School. Series 1914. Chicago: The Year Book, Publishers, 327 S. La Salle Street.

This is one of a series of ten issued at about monthly intervals, covering the entire field of medicine and surgery, each volume being complete for the year prior to its publication. While these volumes are published primarily for the general practitioner, they are arranged in volumes which may be purchased separately, so that he may select any one which he may desire.

The articles are well selected from the best of the previous year's journals and make a very convenient and up to date work of reference. W.J.W.

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The Canadian Journal of Medicine and Surgery

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Editorials

EARLY MARRIAGE

So many efforts are being made by men and women of an altruistic mind, to benefit their race, that it must be a very unique and feasible idea that will obtain more than one editorial or reprint. Mr. Caspar L. Redfield's is such an one. He has offered to the American Genetic Association the sum of $100.00 for any proof that a superior individual was ever produced by breeding human beings as rapidly as four generations to the century. This superior individual would be of the same stripe as Copernicus, Galileo or Newton, Bacon, Faraday or Darwin. The time limit for Mr. Redfield's offer was up on Dec. 31, 1914, but since none of the pedigrees sent in conformed to the requirements it still stands.

When it can be proved by elimination that the truly great have not attained their mental traits by a long succession of previous early marriages of their ancestors, Mr. Redfield will then have clinching data

to convince the courts that the present heterogeneous marriage laws should be changed, his ultimate object.

At present, in some civilized countries, the legal age for males is fifteen years, and for females it is thirteen years. This is disgraceful, bordering on the Oriental customs that have produced the swarms of Hindoos and others who succumb so readily to the cholera, bubonic plague and like hideous diseases and drug habits which they have never had the acumen or stamina to exterminate.

The age of twenty-one for both males and females to be set as the limit is to be the triumphal outcome of Mr. Redfield's investigations and arguments. We wish him success.

Those who have charge of schools where the students range from fifteen to twenty years of age can easily see the undertone of ignorant restlessness in the average boy and girl. New powers are being awakened which they are perhaps not being taught to control.

In the girls, the functions of that age are perhaps only slowly and irregularly established, leading to anemia, loss of education, tuberculosis and other disastrous conditions.

The heart of youth is often hard, and they who have not yet outgrown resentment and rebellion to their parents' rule are not ready themselves to become parents. They who are not obedient can never govern wisely. Wisdom, forethought, prudence and all the other qualities which the householder must have are not developed even as early as twenty-one.

It will be a great advantage to have a universal marriage law in Canada, this probably leading also to a universal and even more stringent divorce law. We have reaped the sad harvest from having had differences between our own provinces, but have we profited by it?

Back of the laws, however, stand two things, the church and the schools. When a clergyman is asked by two very juvenile people to marry them, he does so because they have the license, and if he did not, some other man would. If he would hold up the proceedings right then and there until they produce their parents, it would be a warning to many. If, too, the City Clerk who makes the license has any doubt about their age, he should do likewise, and in cases of falsehood, indict promptly for perjury.

As for the schools, many variegated schemes have been ventilated for teaching young people the principles of the reproduction of the species, but this is distinctly the duty of not the teacher, but the *parent*. The teacher should keep the pupils occupied, both during class hours and for a proper period in the evening by home work. The studies to be chosen should be selected with care, botany, biology, and others relating to the problem of life, and delicately handled in school. For the balance of the day, and for vacations, or for those boys and girls who leave school and go to work, much more control is needed, from the head of the family, to put in their minds thoughts of other things than themselves, and to reduce any dangerous leanings to an inert condition by

healthy labor and pleasant but fatiguing outdoor recreations.

With the desire for marriage should grow in equal proportion the ability to keep a home, and it is quite to be expected that a boy and girl who have both had an all-round education would be too practical to undertake the responsibility of a home until they had some means.

As for the middling poor, they will be better taken care of when the following standard obtains everywhere, viz., that a boy must be a certain age and weight and must have passed into a certain grade before he can get his working papers. These are to be brought by the parents to the school principal who fills them out and releases the boy only when he comes up to the specifications.

The final referee, in a modern Utopia, will be the physician who examines both applicants thoroughly before marriage. It is to be hoped that this day is not far off. He will then get his reward before the marriage, rather than have two or three ill people on his hands with their treasury empty afterwards.

"THE UNWRITTEN LAW"

THE strange hypnotic spell a silver tongued lawyer can weave about a jury of honest countrymen has astonished an interested public, recently, in Toronto, and caused the really unprejudiced and saner minds grave apprehension and misgiving as to the effect

upon the public mind in the future if this precedent of meting out, not stern justice, but the "Unwritten Law" be followed.

Toronto is a worse city to live in because a miscreant is at large, and the poor creature herself is in a worse condition than if housed in some asylum, prison or house of detention under proper treatment. Judging by the standards taught by psychiatrists, she is a person of insane impulse. If there is any scientific doubt that she cannot be classed with the feeble-minded then she is still a worse menace to the public—a criminal at large, full of hate and vengeance, in which case she will revert to type and ere long, as history proves, may repeat her offence and again the sacrifice of a human life may pay the penalty, and prove, when too late, that someone has blundered in allowing this irresponsible to be the mistress of her own wild imaginings and rash impulses. The greatest kindness to the young woman, and in common decency to Canada, she should be returned speedily to the land that gave her birth.

THE PROPOSED CHIROPRACTIC BILL

A REPRESENTATIVE deputation from the Academy of Medicine, Toronto, and the Ontario College of Physicians and Surgeons appeared before the Private Bills Committee, Parliament Buildings, Toronto, on Wednesday, March 17th, to oppose the proposed Chiropractic Bill which was up for discussion. There

was a large deputation from those interested in the passing of the proposed Bill, who were duly represented by legal counsel. It did not take very long for the Hon. Mr. Lucas, Chairman of the Private Bills Committee, to dispose of the matter. Mr. Lucas stated most emphatically that the Ontario Government had no intention whatever of licensing any further sect or class interested in quasi-medicine. He further stated that the Government intended some time in the course of a year or so to seriously consider the late Premier Whitney's suggestion regarding the appointment of a Medical Commission, who would take into consideration all matters connected with Medical Education. Mr. Lucas hinted strongly that the proposer of the Bill withdraw it, which was immediately done. The Academy of Medicine, Toronto, and the Ontario College of Physicians and Surgeons propose to watch this matter very carefully and will not permit, as far as they can, any such Bill to go through the Legislature, not only as a protection to the medical profession, but as a protection to the public being further imposed upon.

PETERBORO MEETING OF THE ONTARIO MEDICAL ASSOCIATION

DON'T forget the dates of the Ontario Medical Association at Peterboro this month. The committees have worked very hard to make the 1915 Convention the banner one.

Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Reprints supplied at Net Cost

Original Contributions

UTERINE HEMORRHAGE IN THE NON-PREGNANT UTERUS BEFORE THE MENOPAUSE*

BY ALBERT A. MACDONALD, M.D.,
Associate Professor of Obstetrics and Gynecology, University of Toronto.

THE subject of "hemorrhage from the non-pregnant uterus of the human female from birth to the menopause" offers a wide field and opens the way for a free discussion.

It is my desire to take up the subject in its practical side, and to treat it from the view point of long experience.

Its causes may be roughly divided into two classes—local and general, the latter depending upon some fault of the blood, the nerves or general debility.

First, let us consider hemophilia depending upon congenital defect in the coagulating power of the blood, said to be hereditary, "atavism through the female, rarely through the male."

Manifested usually before the second year of life.

A comparatively recent case in my service at the Toronto Western Hospital is worthy of mention.

A normal looking infant, the offspring of a delicate mother who had suffered so severely during the early months of pregnancy from pernicious vomiting that it was a grave question as to whether the uterus should be emptied, but who gradually gained her health and was enabled to proceed to a normal parturition and puerperium. The infant looked healthy at birth and did not show any abnormality until the seventh day, when jaundice appeared. This was soon followed by profuse uterine hemorrhage, with bleeding from the umbilicus to a lesser

*Read at the meeting of the Academy of Medicine, Toronto, February 2, 1915.

extent and also extravasations of blood under the skin in various places. The umbilical bleeding was controlled by pressure and the application of adrenalin solution. The uterus was exposed by a speculum—the cervix and vagina wiped out and packed again and again with gauze soaked in adrenalin solution. Though the infant was blanched and weakened, she was able to nurse and digest her mother's milk.

After tedious treatment extending over about five days, the bleeding stopped and the infant gradually gained strength, ultimately becoming to all appearance a normal baby.

I attribute her recovery to her power of digesting her mother's milk as much as to the influence of the local pressure and the application of unlimited quantities of adrenalin.

It will be of interest to note whether the male children of this infant (should she live to have any) follow the course said to be usual and die from bleeding in infancy, but it will be for others to observe the sequence of events.

Horse serum or gelatine are useful in these cases, but were not employed, as the infant nursed so readily from her mother and the stools bore evidence of good digestion.

Other causes may be mentioned, such as anemia, scurvy, purpura shock, nervous exhaustion, whether from overwork or excitement. The approach of puberty, the menopause, constipation and other conditions which tend to the production of pelvic congestion.

For the relief of such conditions we require fresh air and sunlight, with an amount of rest or exercise suitable for each case.

Regulation of the alimentary canal and the exhibition of suitable tonics, such as iron, quinine and the phosphates, calcium and ergot or other agents to act upon the uterus and the blood.

To the general conditions are closely allied the degenerations of the endometrium and the various flexions and versions of the uterus as well as a condition of general hardening of the uterus met with at times, especially in women approaching the menopause. Such cases often derive benefit from curettage and the correction of the faulty position of the uterus in addition to the general treatment suitable for each case.

With regard to curettage, I should give a few words of caution, as I fear that it is not perfectly understood by all.

It should be regarded as a surgical operation and surrounded by the same aseptic precautions as the most delicate procedure. If the endometrium is roughly scraped away and a chemical applied which is capable of destruction of tissue we will have death of that tissue and discharge of the sloughing dead parts, defeating the very object of the operation, viz.:

The early reproduction of a normal healthy endometrium. In the majority of instances sterile water will be sufficient with which to wash away the blood and shreds resulting from the curettage. Should you, however, think that you require antiseptics, use those which are not destructive in their action, and always be sure that there is a free outflow provided by whatever douche nozzle you use.

Permanganate of potash solution, alcohol or iodine are useful. The interior of the uterus is one of the few places where I employ iodoform. If a packing is required in a septic case iodoform gauze is admissible.

Amongst local causes we may note diseases of the fallopian tubes, by their irritation, causing uterine bleeding.

Ovarian tumors in their earlier stages may excite bleeding, though in times gone by when ovarian cysts were allowed to grow to a large size amenorrhea was the rule.

Non-malignant cases of bleeding from the cervix can hardly be classed as hemorrhage, as the bleeding is slight and easily controlled, but in malignant disturbances we have a fruitful cause of trouble, and one which should be sought out and treated at its earliest manifestation.

It is our duty to instruct our clients that they should not bear lightly any irregular discharge from the uterus.

In the early days there may have been some excuse, but now when the curability of cancer by early operation is well established, we would be remiss in our duty if we allowed temporizing in such cases.

Some women are extremely nervous about such matters, whilst others are so tolerant that they will bear an irregular blood loss without seeking advice until they are completely

exhausted and past the safety limit. Such a case has just passed out of my service at the hospital. The first examination revealed a putrid, bleeding mass involving the cervix and part of the body of the uterus, but fortunately not the vaginal sides.

Years ago hysterectomy was not as safe as it is to-day, and such a case would probably have been attacked with scissors, scoop and cauteries, and perhaps some benefit would have resulted. I remember with horror my earlier experience with such cases.

To-day hysterectomy is safe and rescues the patient from a disease of suffering.

The great desideratum is to insure early and complete operation.

Before opening the abdomen it is a good plan to clear away the diseased portion projecting into the vagina, incise the vaginal vault in front of and behind the cervix as if for vaginal hysterectomy, secure the uterine arteries, cleanse the parts, and pack the wound with sterile gauze; then change gloves, etc., and proceed with the abdominal operation. I believe in this way one can make less traumatism and occupy a shorter time in operating.

I may here lay stress on the great importance of gentleness in handling these cases. It is of the utmost moment not only that the exposed surfaces should not be soiled, but also that they should not be bruised or dragged upon. In my early experience I employed vaginal section, using clamps on the broad ligaments, etc., but found it a dirty method, and though the operation may be easy and rapid; the slough resulting does not commend itself to my idea of modern methods.

With regard to the radical operations it is extremely difficult to say in any case that recurrence will not take place, but there can be no doubt but that ultimate success is proportionate to the early date of the operation, and the completeness with which the diseased portions are removed. Though partial or cervical amputation may have been justifiable twenty years ago, it has no place in the treatment of these cases to-day unless the surrounding parts are so invaded that a complete operation is impossible.

Polypoid growths sometimes cause such an amount of bleeding that the patients become exhausted before seeking advice. They are easily removed. Though usually a bar to pregnancy, I had one case not long ago in which conception happened. The polypus disappeared during gestation, gave no trouble at parturition, but appeared in three months, causing both debility and nervous exhaustion as well as the bleeding.

Restoration to complete health followed removal of the benign growth.

Fibroid tumors are a most potent cause of bleeding, especially in the submucous and interstitial varieties, the subperitoneal cases giving more pain and less bleeding. In some of the first named varieties improvement may be derived from electrical treatment 50 to 150 milliamperes of galvanic electricity being applied by an intrauterine electrode and a large abdominal pad. The procedure is, however, tedious and uncertain, and, notwithstanding the strong advocacy by such men as Apostoli and Keith, has passed into oblivion.

Formerly artificial means were advocated for hastening the menopause (thinking to bring about uterine atrophy) by the tying off of the tubes and ovarian arteries and removal of the ovaries. We had modified success in these cases, and now it is fair practice to remove the uterus, which gives positive results.

In exceptional cases a fibro-myomectomy is indicated and good results follow. One such case in my practice is worthy of note.

Mrs. E. had a small fibroid within the cervix. She became pregnant and aborted at the third month; as she had very little pain or discomfort, she would not have an operation. She became pregnant and aborted a second time before she consented to have the tumor removed. Finally she underwent operation and had the growth removed, after which she became pregnant and bore a healthy living child at full term.

It is beyond the limit of my assignment to touch upon the presence of these tumors in the pregnant uterus, but I have had some interesting cases where the growths were removed during pregnancy without interruption to the normal course of gestation, and also where the growths were so numerous and painful that the pregnant uterus had to be removed.

In one such case there were polypi protruding from the cervix which kept up bleeding and numerous fibroid tumors existed in the body of the uterus, giving rise to such pain and pressure symptoms that the pregnant uterus had to be removed to save the life of the mother.

I mention this case as it is unique in my experience to have polypi, fibroids and pregnancy existing together in the same individual, and for a time the complete diagnosis was clouded.

Though in many instances we may remove fibroids without taking away the uterus, in the majority of cases I have found that a supra-vaginal amputation would give excellent results. I feel that I have touched but lightly upon the subject in hand, leaving untold more than told, but perhaps it is the better way, as we will have many openings for discussion.

Personals

Dr. and Mrs. J. T. Gilmour were the recipients of an illuminated address and a Pathephone on March 31st on the occasion of Dr. Gilmour's removal to Guelph. The presentation was made by members of the Parkdale Methodist Church, of which Dr. Gilmour was a most prominent member. Dr. Gilmour's removal to Guelph is a distinct loss to the profession in Toronto, with whom he was most popular and deservedly so.

We take this opportunity of congratulating Dr. Gordon Gallie, of 143 College Street, on his marriage to Miss McLean, of Ottawa, on March 29th. Long life to the bride and groom.

Dr. George Boyer, of Bathurst Street, was married the week following Easter in Chicago to Miss Jean Anderson, daughter of the Bishop of Chicago. Dr. Boyer is one of the University of Toronto Contingent and will leave for the Front with No. 4 General Hospital.

Militia and Naval Medical Services and Ambulance

LETTER FROM DR. ED. ROBERTSON, WRITTEN FROM THE TRENCHES IN FRANCE

The following is an exceedingly interesting letter, which we feel sure will interest all of our readers, received recently from Capt. Dr. Ed. Robertson, late of 143 College Street, Toronto, written from the trenches in France, dated March 3rd. It gives a splendid idea of the work that has fallen to the lot of some of our Canadian Surgeons and also describes in some detail the terrible wounds sustained by our men from shrapnel and rifle bullet. The letter was written to Dr. E. Gallie, of Toronto.

4-3-15 Trenches.

Dear Ed.—We are half way through our turn. We now have our own line and our own Division is acting as a unit and have been given a part of the line. The men have conducted themselves splendidly since arrival in France, so that the British Generals have much that is nice to say of them.

A couple of days ago while we were in a town nearby the enemy began to shell it. I went out of house to see the shells and went to a field behind. I had just arrived when I heard a screech and a shell burst 250 feet in front of me. I went back to the house and in a minute a man came in and said some soldiers had been hit. It appears some ten of them had been standing on the road about 150 yards away from my billet when a high explosive shrapnel came. Pte. Holmes must have been hit before it burst. His head, or top of the skull, was taken off as it is done at autopsy and just as clean. There wasn't a bit of brain in the skull, it was absolutely emptied and splashed on a Scot behind him. A Scot was also killed in-

stantly. Shrapnel through face and head. Another man had his right tibia and fibula absolutely smashed up and was suffering horribly and another had an odd bullet in his back and refused morphine but thanked me for a cigarette and treated the whole thing as a part of a joke, at all events the smile never left his face. Another had about seventy or eighty bullets from his heels to his buttocks; another three in his right hand, and these are all I dressed and it took me about thirty-five minutes. I have morphia put up as a vaccine in a rubber-topped bottle. Altogether there were two killed and eight wounded. Well, needless to say, I was duly impressed by shrapnel and thought I would like rifle wounds better. We went into trenches that night and at ten o'clock they brought me a rifle wound. Point of entry over left eye through eyebrow and out through right mastoid. Entry could hardly be seen, but exit was a mass of brains sticking out the size of an egg. Lateral sinus pouring blood. About an hour later a ration party started out, just gone four minutes when a machine gun opens and about fifteen rounds rapid by some 150 of the enemy. It was wicked. The bullets were like hail. I waited in fear and trembling for that party. In two minutes a man comes back. "Where's M.O. About six men are dead and I don't know how many wounded." I said, "all get back and carry in, stretcher-bearers, too." I sent a runner off to my 2nd Station to have them send for an ambulance, then I ran out to place where the men had been caught. I met the bearers returning empty. They couldn't find anyone. When the fire opened the men all rolled into a five-foot ditch full of water and when it was over they went on. Having had enough excitement for one day I went to sleep telling my Sergeant to call me when the ambulance arrived at my 2nd Station. He called me four hours later and I asked where the ambulance was. He said the runner had just returned, having got lost and hadn't got the ambulance. I said "didn't he get any information?" My Sergeant answered, "Yes, he says Capt. Haywood has your dog." My dog, Jim. I left with my groom and horse. He evidently got away and went back to billet where he found the Third Battalion in possession and Alf picked him up.

Things went rather quietly for about eight hours. My head case died at 2 p.m., and then a few shrapnel shells around just to keep one awake, and at dusk I sent for a Chaplain to bury the dead man and had a grave dug and a cross made. The Chaplain came up with us at 9 p.m., and another man was brought in dead. He was hit in the head just over the eye by a bullet that had come through a bag of bricks. That bullet cleaned out his whole frontal bone and frontal lobe. One could see the sella turcica. An orange would have dropped into the wound all right, it was so large. So we had a double funeral by dark with bullets all around us. Then that absolute quiet reigned again—not absolute, but the comparative quiet one sometimes gets in the firing line—shell frequently—bullets whistling all the time. In another twenty-four hours another man is caught—one of ration party, just leaving a trench when a bullet tears a hole in the top of his head. It tears out his Sup. Long. sinus which, as you know, is prone to bleed a little and his brain protruded about two inches, the upper parts of the Rolandic areas being readily seen sticking outside the scalp. He dies three hours later.

Of our three deaths in the trenches so far this visit, one was killed in day time by a bullet through the parapet and the other two were in ration parties and were hit by chance bullets —all wounded through the head and such wounds—no chance at all for a Doctor to do anything. All I have done is to arrange for funeral services and I fancy that I'll fail to get a Chaplain some time and have to take over his duties, too.

As I have already said the men are behaving splendidly and are very keen. They go out into this storm of bullets cheerfully and readily and I have seen not the slightest suspicion of cowardice. They'll do their little bit, don't fear. My stretcher-bearers are extremely good. They show the best of judgment, apply dressing in a manner that would astonish you if you could see where they work, in an open field inches deep in mud without a light. As far as their courage goes they never seem to think fire too heavy to go out after a man. One of them has just come in and he has just traversed an extremely dangerous bit of ground. It is open. He says Fritz is on the

job but his aim isn't very good. Fritz fired at him twelve shots but didn't get him—only got close. Jones says he dodged behind bushes. These bushes I might say are about six thin branches, standing about five feet high. Jones has no fresh mud on him so he didn't flop down but came right on.

We can't get to our trenches in the daytime as the enemy are over us and command the ground behind us and so it is very dangerous to move much in daytime. It is extraordinary, I take it, we don't lose more at night. One came so close to my nose last night that I could smell it and it was going some when it passed me.

The last time I took my temperature it was 100 3-5. That was just before the men got hit by the shrapnel. I was busy for about fifteen hours afterwards and I have been pretty much so ever since so I take it I am all right again. I am feeling fit again at all events.

A REQUEST FOR CANADIAN MEDICAL PRACTITIONERS FROM THE BRITISH WAR OFFICE

The British War Office forwarded a few weeks ago a request for the services of Canadian Medical Practitioners. Lt.-Col. John T. Fotheringham, A.D.M.S., recently received a communication to this effect from the Director-General of Medical Service at Ottawa. Any civilian practitioner who desires to give his services will, under the following conditions, be given the rank of Lieutenant in the Royal Army Medical Corps. He must join the Canadian Army Medical Corps and be vouched for by the authorities of that Corps. The inclusive rate of pay will be twenty-four shillings daily with rations, or allowance in lieu. Thirty pounds will be granted for outfit allowance and seven pounds ten shillings for camp kit. The period of service will be one year or when no longer required, and at the expiration of service, if the same is satisfactory, he will be allowed a gratuity of sixty pounds. Free passage will be given to England.

Before being eligible to the Canadian Army Medical Corps, the following qualifications are necessary:

1. Applicant must be first a British subject.
2. Recommended by the Commanding Officer and Assistant Director of Medical Service of the Division or District.
3. Certified to be medically fit.
4. Under 45 years of age (the War Office places the age limit at 40).
5. Practitioner registered in the Dominion of one of the Provinces.

In connection with this last point it is important to observe that the British law forbids the acceptance of any practitioner who is no registered in a Province of the Dominion which has reciprocal relations with the General Medical Council of Britain. The Provinces which at present have this relation are Nova Scotia, Quebec, Prince Edward Island and New Brunswick.

The War Office states, however, that it is willing to accept Canadian University graduates registered in Canada provided that the Provincial Medical Boards, which do not already reciprocate with the General Medical Council, *express a desire for reciprocity* with the same. The Province of Ontario may now be included among those having reciprocal relations owing to the recent Legislative enactment.

The Militia Department have, it is understood, already taken the action required by the British Medical authorities.

CANADIAN HOSPITALS NOW "IN ACTION"

There has arisen some confusion over the arrangement of the hospitals in England at which Canadian troops are being tended. The names most frequently mentioned in recent despatches are the Queen Mary Hospital at Shorncliffe and the Duchess of Connaught Hospital at Cliveden. These two hospitals are not base hospitals in the sense that they are not maintained by the Government. The Shorncliffe is maintained by private subscription. The Cliveden is also supported by sub-

scription, to which the Canadian Red Cross gave $80,000. These two hospitals, however, are fully qualified and recognized military hospitals. They are Canadian, they are manned by Canadian doctors, and are maintained largely by Canadian money. And, finally, Canadian troops, wounded and sent from the general hospitals on the Continent, are usually sent to either of these two Canadian hospitals.

The properly termed Canadian base hospitals, Numbers One and Two, are somewhere in France, back of the firing line. Numbers Three and Four, manned respectively by McGill University and by Toronto University will be "at the front" any day now. It is understood that McGill will proceed to France ahead of the Toronto contingent, and will set up their "plant," their tents, buildings, etc., in good time to be of service.

The system of field ambulance and hospital work has to be done nowadays as a regular part of the day's fighting, as even the nights are not sacred to the gathering of the wounded. The field ambulance system established a field hospital just back of the trenches, to which stretcher-bearers carry the wounded as they fall. At a given time the motor ambulances call at this field hospital and carry the wounded several miles back to the base hospital. When the wounded are well enough they are sent to England. That is when Shorncliffe and Cliveden come into action. Of course, Canadians go to other hospitals in England as well as these but to simplify the distribution of wounded, all that can be handled are sent to these two.

Shorncliffe, the Queen Mary Hospital, is at Shorncliffe, near Folkestone, Kent. Dr. Donald Armour, of Cobourg, is the surgeon-colonel in charge. The staff is largely of Canadian doctors, not of the army staff, however.

Cliveden Hospital, equipped with 100 beds, is now in full going order, having received its first allotment of patients some weeks ago. Nearly a hundred British Tommies and one Canadian, Private Craig, of Calgary, were brought across from base hospital in France.

Cliveden Hospital, like that of Shorncliffe, has an all-Canadian staff of doctors and nurses, who are carefully selected from the Army Medical Service. Lieut.-Col. Gorrell, working under

the supervision of Surgeon-General Jones, is acting as chief physician and organizer.

Miss Campbell, of Montreal, has been appointed matron, and Sir William Osler's services have been accepted as consulting physician. If sufficient funds are forthcoming, an effort will be made to make the hospital a Canadian Base Hospital, which, when completed, would be in the nature of a sanatorium, with an accommodation of about 400 beds.

The British War Office continues to make all payments and grants in connection with the hospital, but all Canadian funds are kept quite separately, so that the association is entirely responsible for its upkeep and management.

Mount Vernon Hospital, Hampstead, London, though less frequently mentioned, is manned by Canadian doctors, under the War Office. Col. Lorne Drum of the Canadian A.M.C. is in charge.

There are twelve hospitals, or, rather, twelve separate sections of the hospital, which is equipped and maintained by the Canadian Army Medical Corps on Salisbury Plain. The chief of these is at Bulford. Col. Murray MacLaren, of St. John, N.B., is in charge. One of the twelve hospitals is at Ablington House, which has been lent by Mrs. Vaughan, wife of Brig.-General John Vaughan, commanding the 1st Cavalry Brigade at the front. The nurses at these hospitals belong to the Canadian Army Nursing Service.

The hospital installed at the Golf Hotel at Le Touquet, in Northern France, is in charge of Lieut.-Col. Shillington of the Canadian No. 1 Field Hospital, Ottawa, and is entirely officered by Canadian doctors and nurses. The military hospital at Dinard, France, is the gift of the Canadian Government to the French War Office, in the shape of $100,000 cash. It has 100 beds, and is controlled by Hon. Phillipe Roy, Canadian Commissioner in Paris.

With the first Canadian contingent there are 141 doctors, attached to the Army Medical Corps. The base and field hospitals on the firing line, mentioned above, are manned by these. In the second contingent there are 160 doctors enlisted, including the McGill and Toronto University base hospital units.

These figures do not include the men attached to Shorncliffe and Cliveden; and counting the Canadian doctors who went as "free lances," who are attached to other British hospitals in England and France, the total number of Canadian doctors is said to be near 400.

Canadian Nursing Sister Macdonald has 103 Canadian nurses all actively employed under her and directed from her headquarters, the Netheravon Cavalry School in England, while twenty Canadian nurses and sixteen medical men have been sent to the military hospital at Boulogne.

Col. Charles Hodgetts, the Canadian Red Cross commissioner, states that the Canadian Red Cross Society has contributed £15,000 in cash and paid for twelve motor ambulances as a gift to the British Red Cross Society. It has also given £1,900 to supply one coach in Princess Christian's Hospital train. It has, besides, handed over to the British Red Cross Society 10,000 blankets, 10,000 pairs of socks, and 10,000 flannel shirts. The society has also contributed £2,500 to the St. John Ambulance Association for the equipping of one ward of the hospital to be set up in France and to be operated by the association.

MEDICAL UNIT WILL BE BUSY

Colonel W. A. Logie and Captain H. C. Osborne inspected No. 2 casualty clearing station at the old General Hospital recently. The general officer commanding expressed himself as well pleased with the progress of training in the medical unit, which is commanded by Lieut.-Col. George S. Rennie, of Hamilton, a well-known physician. The station is composed very largely of Toronto and Hamilton doctors with Toronto University students as Orderlies.

Explaining the services of a casualty clearing station, Lt.-Col. Rennie stated that units of the same strength at present operating in Northern France are handling from 500 to 1,000 patients nightly. That strength is 85, including eight qualified doctors, 43 medical students and the rest orderlies of every trade.

The casualty clearing station is the second in a line of four hospitals through which the wounded pass from the battle front. A soldier is carried out of fire by his regimental stretcher-bearers. He is then picked up from behind the rocks, banks or other protection the stretcher-bearers place him in, by the first section of the field ambulance, is handed over to another section, which takes him back to the dressing station of the field ambulance, where he receives the first dressing after the first aid which he applies himself. The fourth section of the field ambulance transports him back further from the front to the casualty clearing station, which is close enough to the battle line to be under fire.

The casualty clearing station gives him substantial medical and surgical attention, and sends him on to the stationary hospital, which, although it is not stationary, is less mobile than the hospitals in advance of it.

The Stationary Hospital holds the men who are not seriously wounded and brings them back to fighting condition as quickly as possible. The more seriously injured are passed on to the General Hospital and either held there until recovered or distributed to the base hospitals or hospital ships, which take them to base hospitals in England.

No. 2 General Hospital, now operating in France under Lieut.-Col. Wallace Scott, of Toronto, had handled 13,000 patients up to March 1st. This was Col. Rennie's former command and the one which he will take over when No. 2 Clearing Station is moved to London, England, and placed under Lieut.-Col. Scott. Col. Rennie came to Toronto as an artillery officer, from Hamilton. He belonged to the 33rd Battery, 13th Brigade, there.

Lieut.-Col. Rennie's staff is as follows: Second officer commanding, Lieut.-Col. A. B. Osborne, Retired Officer, Hamilton; Major J. E. Davey, 19th Field Ambulance, Hamilton; Major F. W. E. Wilson, 2nd Dragoons, Niagara Falls; Capt. G. S. Strathy, A. M. C., Toronto; Capt. Herbert L. Jackes, A.M.C., Toronto; Capt. L. B. Robertson, A.M.C., Toronto; quartermaster, Hon. Capt. G. B. Strathy, Toronto.

Ambulances have been donated to Col. Rennie's command by Captain G. B. Strathy, Stanley Mills, Hamilton, G. H. Gooderham, Toronto, the Hamilton Red Cross Society, and the Ontario Motor League, who expect to donate another.

MOBILE LABORATORY NOW AT FRONT WITH CONTINGENT

A cable received in Toronto a week or two ago announced the safe arrival in France of the mobile laboratory of the 1st Canadian Contingent, in charge of Lieut-Col. G. G. Naismith, the city bacteriologist. With him on the staff are Captain Arthur Ellis, son of Prof. Ellis, School of Science; and Dr. Rankin, Provincial bacteriologist for Alberta, and six laboratory assistants, chauffeur, and mechanics. Drs. Ellis and Rankin did special work in connection with the meningitis outbreak. They were working at the Lister Institute at the time, and left at once for Bulford hospital.

The laboratory was provided by the War Office for service with the Canadian expeditionary force, and consists of a motor lorry carrying the most modern and complete laboratory equipment and also of an automobile for the use of the staff. It will work ten miles back from the firing line. The delay in its arrival in France has been caused by difficulty in securing the requisite equipment and in arranging for transportation.

SAYS MORE GERMAN PIRATES SUNK THAN PEOPLE KNOW

"We have been frightfully busy the past week following our offensive at Neuve Chapelle," writes Dr. J. C. Calhoun, of Toronto, now attached to No. 14 General Hospital, Boulogne, in a letter dated March 18 just received. "We have been operating day and night, I myself so far this week (Thursday) have done eight enucleations, a frontal sinus, and three brain cases, besides many more not directly in my line. Besides that I get all the special cases referred to me for treatment. Among

my patients were eight Germans, and believe me they were a sick-looking lot. They would have been almost naked if it had not been for the clothing that some of the Tommies had provided them with. Everything has quieted down again, but we may expect a rush any time. The wounded men are extremely cheerful, as from all accounts they gave the Germans a bad trimming.

"The submarine blockade is pretty much of a fiasco. The Germans will continue to get an occasional merchant ship, but I hear from straight authority that we have got many more of their submarines than officially stated by the Admiralty."

OFF FOR WAR ZONE

Colonel E. Sterling Ryerson, M.D., R.M.O., president of the Canadian Red Cross Society, left on April 1st to inspect the hospitals and Red Cross undertakings near the Front. He expects to be away three months. Among the institutions he will visit will be the Duchess of Connaught Hospital, Cliveden, the Shorncliffe Hospital and the hospitals on the continent, at Le Touquet, Boulogne, Rouen, Le Havre, in which Canadians are particularly interested and also the hospital conducted in Paris by La Presse of Montreal.

MANY DOCTORS WOULD SERVE

Lieut.-Col. Fotheringham has received a large number of applications from Toronto and district doctors desirous of serving in the R.A.M.C.

Drs. J. A. Amyot and McKeown, who leave for the front with No. 4 General Hospital, were entertained at dinner by some of their Catholic friends on April 8th, each gentleman being presented with a handsome military wrist watch.

No. 4 GENERAL HOSPITAL

Col. J. A. Roberts and the officers of No. 4 General Hospital (University of Toronto Base Hospital), who will leave any day for Europe, were entertained at dinner at The York Club, Toronto, on April 6th by the President and Council of The Academy of Medicine. It was a most delightful affair and was greatly appreciated by those of our profession who are making great personal sacrifice in order to serve their King and Country. About seventy sat down to the table, the number including President Falconer, Dean Clarke, and some prominent military medical men. There were but two toasts, His Majesty and No. 4 General Hospital, both proposed by the President of The Academy of Medicine. Those present at the dinner attended the stated meeting of the Academy the same evening in the Mining Building, College Street.

McGILL'S WAR HOSPITAL

The McGill General Hospital, which is to leave for the Front shortly, was reviewed by His Royal Highness the Duke of Connaught and his staff the second week of April, and on another day of the same week a special convocation of the medical faculty was held to grant degrees and award diplomas to the medical students who will accompany the hospital.

Inquiries made elicited the information that the McGill General Hospital will be officered by thirty-two of the present teaching staff of the University, Dr. W. T. Ewing, recently of Vancouver; Dr. C. P. Howard, recently of Iowa, both graduates of McGill. Mr. Revers Osler, son of Sir William Osler, and Mr. David Law, as quartermaster, making a total of thirty-six officers. Dr. J. G. Adami has been appointed medical historical recorder to the Canadian Expeditionary Forces, and a member of a committee charged with the compiling of a medical history of the war, and left on April 9th, to take up the duties.

Eighty-two medical students of McGill University will accompany the McGill Hospital as orderlies, etc., and one hun-

dred and nineteen others who have been chosen to complete the unit took part in the review.

The following is the official list of the officers:—Col. H. S. Birkett, Dr. E. W. Archibald, Dr. H. C. Burgess, Dr. H. C. Browne, Dr. H. C. Dixon, Dr. J. M. Elder, Dr. W. T. Ewing, Dr. W. W. Francis, Dr. A. T. Henderson, Dr. W. H. P. Hill, Dr. D. A. Hingston, Dr. C. P. Howard, Dr. W. B. Howell, Dr. Wm. Hutchinson, Mr. David Law, Dr. H. M. Little, Dr. John McCrae, Dr. J. A. MacMillan, Dr. L. H. McKim, Dr. R. St. J. McDonald, Dr. R. H. Malone, Dr. J. C. Meakins, Mr. Revers Osler, Dr. A. H. Pirie, Dr. L. J. Rhea, Dr. C. K. Russel, Dr. L. L. Reford, Dr. R. B. Robertson, Dr. A. Stevenson, Dr. L. H. Thornton, Dr. W. G. Turner, Dr. J. C. Wiekham, Dr. W. A. Wilkins, Dr. H. B. Yates, Dr. J. L. Todd, Dr. F. W. Tidmarsh.

THE OUTBREAK OF MENINGITIS AT EXHIBITION CAMP.

Of the five thousand men in barracks at the Exhibition Camp, thirteen cases of meningitis developed up to the end of March. The first appeared on February 8th, four were brought in between February 14th and 16th, and the remaining cases occurred at varying intervals up to March 19th. Towards the end of this period the infection seemed to become less virulent, and clinically the cases could be grouped according to the date of onset. The first five ran a more severe course than the others, and the disease had in each case a fatal termination. The next five were distinctly less severe, and by the first of April four of them were convalescing favorably, although two were still suffering from the results of complications. The fifth died after some weeks' duration, but in view of the fact that the case was treated at home, where it received no serum treatment, it could still be classed with this group. The last three were especially interesting from their anomalous character. One of these developed slowly with few symptoms, a slight degree of neck rigidity but no retraction. Lumbar puncture yielded a fluid slightly turbid and with a low leucocyte count (500 per c.m.). Some days, however, after his admission his condition became worse.

evidence of endocarditis began to show itself, and at the first of April his temperature had been septic for eight or ten days. The other two were abortive in type and would scarcely have been recognized as cases of meningitis at all had it not been for the fact of their occurrence during an epidemic. The onset in each was gradual, the patient complained of headache, malaise and chilliness, in one case following a cold. After two or three days vomiting set in, followed by slight neck rigidity and a positive Kernig, both of which disappeared in three to four days. The fever, which at no time was above 102 deg., gradually fell to normal, in one after five days and in the other after ten. No complications set in at any time, and the men seem to be well out of danger.

The three stages of development, as described by Lundie, Thomas, and Fleming, the catarrhal, the septicemic, and the meningeal, could not infrequently be distinguished. The symptoms of the second stage were, as a rule, chilliness or even rigors, general malaise, pains in the muscles and joints, weakness, headache, and finally vomiting. Frequently the condition was suspected during this stage and the man isolated, but the difficulty of diagnosis was further increased by a co-existing and severe epidemic of influenza from which the septicemic stage could hardly be differentiated.

During the course of the epidemic several complications were seen; these included arthritis, phlebitis, otitis media, nerve deafness, blindness, paralysis and hydrocephalus.

On the outbreak of the meningitis the most vigorous measures were adopted to stamp out the disease and control any possible source of infection. The medical *personnel* of the various units was doubled, the men were personally inspected in their barracks, and every effort towards early diagnosis made. All doubtful cases were sent to an isolation ward for suspects at the camp hospital, and after a diagnosis the man was at once removed from the camp and turned over to the General Hospital for treatment. The next step was the search for carriers and provision for effective quarantine. A systematic and complete examination of the cooks and mess orderlies was made and cultures taken from the nose and throat of each man. When a

new case broke out, the men who were sleeping in its neighborhood, or were in any way liable to infection by contact, were given special quarters in a building outside the grounds, where bacteriological examination was made. Not until three negative release cultures had been obtained were these men allowed to return for duty. From these two sources seventy-two carriers in all were discovered and isolated in the old General Hospital building, where they were kept under constant observation. No cases of meningitis developed among these men, and in six weeks' time seventy had been liberated after four release cultures. The remaining two gave positive growths repeatedly, and possibly belong to the class of so-called "persistent carriers." In addition to these precautions the sanitary arrangements at the camp were made more stringent. Kitchen and mess orderly staffs were made permanent and kept isolated. All dishes, cutlery, etc., were boiled after use. Wash basins were kept in disinfectant, and so forth. Taking into consideration the number of men closely confined in barracks, and exposed as they were to cold and trying conditions, the small number of cases, about one-quarter of one per cent., is in itself evidence of the success of these prophylactic measures.

A. Fletcher, *Lieut., A.M.C.,*
For J. T. Fotheringham, *Lieut.-Col.,*
A.D.M.S., Camp.

Lieut.-Col. F. W. Marlow has been appointed Deputy Assistant Director of the Medical Service. or the administrative head of the Medical Branch of the Second Divisional Area under Col. J. T. Fotheringham, with headquarters at the Exhibition Camp, taking the place of Col. Roberts, commanding officer of No. 4 General Hospital. Lieut. Dr. J. W. S. McCullough takes Dr. Amyot's place and will look after the sanitation arrangements in the Local Division.

Obituary

AN APPRECIATION OF DR. WM. BRITTON

BY JOHN HUNTER, M.B., TORONTO.

In the early seventies of the past century, there entered the old Toronto School of Medicine a young student, a splendid type of physical and intellectual manhood. Erect of body, and towering above most of his fellow-students in stature, his presence always challenged attention. The clean-shaven face, the clear-cut classic features, the kind, though penetrating, eyes, the well-proportioned head, with its wealth of dark hair, the courtly deportment and reserved manner made young William Britton a very attractive and influential personality amongst his class-mates.

William Britton—he was never called Bill, or Billy—was not one of the adventuresome, or restless spirits of the college. He seemed to enter upon his medical career with the determination to win a first place. The lure of athletics, of theatres, or of society-life, was affectively repulsed, by a strong, valiant, confident, conquering will. He gave unsparingly and persistently of time, energy and attention to every subject in the medical curriculum, so that when the final test came in 1875 he stood first in first class honors in every subject, capturing the gold, and Starr gold medals. It was the writer's privilege to sit near Britton—as the late Dr. James White, of Hamilton, and he were scrapping for second place, as neither of us thought of competing with Britton—and to study his attitude as he faced his task. His bearing was typical of his character, for while White and the writer were "jollying" each other, or looking with some curiosity at those who were "throwing up their job," Britton wrote on and on, never relaxing a feature. He was "out" to win at any expenditure of concentration. He

won easily, though there were some seventy graduates that year, many of whom were good students, and several of whom have won distinction in medicine and in surgery.

The late Dr. Britton, in the two score years of active practice, received many honors from the members of his profession. As a member of the College of Physicians and Surgeons, and as presiding officer of our medical societies, he has left a notable record. He had the ability, but why he did not aspire to a prominent place in hospital and college work, someone else must answer.

Counting the years, one by one, it seems a long way back to 1871-5, and judging, too, from the large numbers that have fallen out of the ranks the journey appears to have been a very strenuous one, but memory, like the aeroplane, annihilates "time and space" and on fleetest wings bears us back to the scenes and associations of our college days, when in imagination, we would once more clasp warm hands, now cold in death.

* * * * *

The Rev. J. W. Fitzpatrick, an intimate friend of the late Dr. Britton, spoke as follows at the funeral service:

I am here to-day to add my word of testimony, as an intimate friend, to the virtues of a great man. I do not speak of his skill as a physician, nor do I emphasize the alertness of his brilliant mind. Leaders in the science of medicine, who are here, and consulted with him in critical cases can testify to his skill, and other men here who are leaders in the thought of this Province and Dominion, know the keenness of his intellect. I am thinking of him rather as a man,—a man with the highest principles and motives in life, and with a keen sense of the reality of the spiritual.

Nor need I refer to his unselfish service to the suffering he met. His skill, his thought, his time, were given unsparingly, not for sordid self-interest, but to relieve the suffering and minister to the diseased who called him. How tender and sympathetic, yet strong and manly, that ministry was, his patients all can testify. And the call to it was so insistent he con-

tinued at his task when his own wasting strength was not sufficient. It was a great trial for him to give up his work.

But I have thought I knew his inner life better than most. I have holidayed with him. We have camped together, fished together, and turned in to our bed of pine boughs and slept together, in our Canadian northland. Those were always great days to me. I have found no place where a man's real self is shown more clearly than in his recreation, when free from the restraints of conventionality, and out of reach of the multitude of eyes and ears that ever watch or listen in our ordinary life. And here he was the same true, pure, high-minded Christian gentleman, when he relaxed. I cannot tarry to review the memory of those days filled with the pranks of a boy just let out of school, or made unforgetable by his sparkling and overflowing wit. Nor do I forget those nights more precious still, when seated round the open camp fire we conversed of the unseen and eternal. In the silence of the Northern woods, by the stillness of the quiet river, under the open canopy of heaven flecked with its myriad stars, looking into the glowing embers at our feet, we talked in heart to heart response of the most sacred things—our faith in Christ, and the life beyond the shadows. These things were very sacred to him, and the fellowship of those hours was very rich. He was a great man. He was a good man. To know him was to honor and treasure his acquaintance. His memory we will cherish till the bounds of life. And when the morning breaks, and the shadows flee away, we hope to greet him in the presence of the King.

THE LATE DR. A. A. DAME

Large numbers of friends and relatives attended the funeral of the late Dr. Alex. A. Dame, which took place on March 26th from the residence, 863 College Street, to Prospect Cemetery. The service was conducted by the Rev. J. W. Woodside, of Chalmers' Presbyterian Church, assisted by Rev. R. E. Knowles, of Galt, both at the residence and at the grave-side. The pallbearers were Dr. H. S. Bingham, Dr. G. H. Bowles,

Dr. F. H. Wylie, Messrs. W. E. Dillon, Alex. McCurdy and W. Mansell.

The deceased gentleman, who was well known, especially in medical circles, dropped dead on Tuesday afternoon while on his way to attend the funeral of the late Inspector J. H. Wallace. He was born in Prince Edward County in 1847, and came of United Empire Loyalist stock. He graduated from Queen's University in 1886, and commenced practice in Jordan, Ont., coming to Toronto in 1889. After practising here for about five years he went to Europe and took up the study of eye, ear, nose and throat work in hospitals in London, Edinburgh, Paris, Berlin and Vienna, returning to Canada in 1905, taking up practice in Galt. Three years later he returned to Toronto, where he since had a very successful practice. He took a keen interest in bowling and curling. Always a strong Conservative, he took little active part in political affairs. He was a Presbyterian in religion and a member of the Masonic Order. Dr. Dame was married in 1877 to Mary Davis, daughter of the late N. H. Davis, of Hamilton. She died in 1881. One son, Allan D. Dame, survives.

Military matters claimed Dr. Dame's warm attention, and his first duties in this connection was as a member of the militia at Kingston during the time of the Fenian Raid. He was one of the original officers, being the regimental surgeon of the 48th Highlanders.

PERSONALS

Dr. H. E. Clutterbuck, of Toronto, who enlisted his services in England when the war broke out, is now Chief Surgeon at No. 13 Base Hospital, Boulogne, having been promoted to that post in February when Major Butler, the English surgeon at first in charge, was taken ill and left for Nice.

Chevalier Dr. Harley Smith, who for several years has so acceptably filled the post of Italian Consul for Toronto, has resigned his office.

The Canadian Journal of Medicine and Surgery

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Editorials

"THESE ARE THEY——

In the new history of Old England and her Allies, in the greatest war on earth, stand out—*Canadians.*

In perhaps the fiercest battle yet waged of this world's war, with courage worthy of themselves and of the Land of the Maple that gave them birth, snatching victory from defeat, stand out—*Canadians.*

In the great silence of dread that ensues after the clang of that battle, while the toll is being taken, Canada mourns too many who worthily sleep in the graves of their fathers, across the sea—*Our Brave Canadians.*

What matters who dies if victory crowns their valor? All honor to *Canadians.*

Who will answer "adsum" again and again if the call comes from across the seas for further aid?—*Canadians.*

To-day we cheer Our Own as we think of them in battalions, but we mourn individually for the friends

of the years, and the great human gaps in the young life of our country, those whose future seemed so bright and who made Canada a finer home because of their presence in it.

No class in our community learned with deeper sorrow than the medical profession of the terrible casualties among our troops in the recent sanguinary fighting in France and Belgium. Among those who suffered and gave up their lives for the freedom of the world were sons of our most prominent physicians. The first Canadian doctor whose life was sacrificed in the fighting around Langemarcke was Lieutenant W. Fitzpatrick, of Pipestone, of the First Field Ambulance. His death and the wounding of other officers with him is a tribute indeed to the heroism of the medical men who risked their lives to succor the wounded in the heat of that awful battle.

To our esteemed confrere, Dr. G. Sterling Ryerson, in sympathy too deep for the touch of a word, all thoughts go out, as he anxiously watches beside one wounded younger son and sorrows, with a mingling of pride that he gave to Canada an older son, who deemed it an honor to die in the thick of the fight.

And so the tale is told, and all dread the dawning of each new day with its casualty list ever straining at the heart strings.

Our splendid University Base Hospital, with its staff and equipment picked from our best, is just going on its mission of mercy and comfort, and many of our boys may come back saved to useful long lives by the skill and care of those who have left every-

thing to make, not only a Base Hospital, but the home joy to our boys of the sound of "Canadian spoken here."

The name of Canada is now writ large indeed in the history of the world, and when the trumpet of the ages shall sound, may the sentry of the Golden Gate to the Land of Perfect Peace find nothing greater as an open sesame than the simple words "*Pass Canadians.*"

> "On Fame's eternal camping ground
> Their silent tents are spread,
> And glory guards in solemn sound
> The bivouac of the dead."

145 College Street,
May Fourth.

AN OPPORTUNITY FOR THE PRACTITIONER

The usefulness of a general hospital to the community is usually judged by its ability to care for the sick poor, because the authorities in the past have found that the public would answer more readily to appeals based upon this easily recognized value.

Any practitioner visiting the medical wards will recognize the majority of the patients to be suffering from ailments which may be alleviated but not cured, ailments which, with small beginnings, have eventually destroyed the economic value of the patients and caused them to be a drain on their families and the community.

Does not the hospital owe more to the community? The surgical and medical emergencies are well cared for, but what of the hundreds of poor who will drift along to become the chronic invalids who occupy most of the beds? Is it not possible to get in touch with these in the early stages and preserve much of their economic value to themselves, their families, and the community.

Apparently the Toronto General Hospital is making such an endeavor, for the letter of Dr. William Goldie, Director of the Medical Clinics, appearing elsewhere, shows the remarkable growth of attendance at the Out-Patients' Department, and that there exists a desire to secure as large a number of physicians as possible to undertake the investigation of these cases.

The investigations of Dr. Oille, Dr. Graham, Dr. Detweiler, and Dr. F. W. Rolph, as reported at the meetings of the Academy of Medicine, Toronto, bear evidence as to what may be accomplished in opening up new fields of clinical research.

Such investigations demand time, some ability and much persistence, but surely repay the investigator in development as much as in fame.

We have heard much of the difficulties of becoming attached to hospitals and the lack of opportunities; here indeed is an open door for entry and an unexampled field for the young practitioner to prove his ability, a field where there is much to be gleaned and where he can accomplish for himself, the patient, and the community the greatest good.

ORGANIZED NEIGHBORLINESS

In Toronto, Detroit, Buffalo, and Brattleboro, Vt., are being worked out local forms of a new great scheme for reaching the "middling poor." Mr. Richards Bradley, of Boston, is the trustee of the Thompson fund which is being devoted to that noble purpose, and Miss Charlotte A. Aikens, of Detroit, is one of its most ardent promoters.

There are many cases of illness accompanied by household distress, which the hospital cannot meet, and many others which a district nurse, due to make ten or fifteen calls per day, cannot relieve alone. And so a system has been evolved, in which there is a graduate nurse supervisor, who has her finger on all the sick needs, or domestic tribulations of her big clientele, and who controls a file of "guerilla" graduate nurses, coming and going at her call, only by imperative need, household or practical nurses, who will tend house and feed the patient, getting the children out to school, and maids or men from the same class who are listed at the employment agencies, reporting to her for such work as caring for furnaces, washing windows or beating rugs, where these duties are ordinarily performed by the member, now ill, of the worthy self-contained family of very limited means.

There are many, not in families, who, when slightly ill, recover more quickly by expert care rendered promptly, and by the sense of being looked after—boarders, or lodgers, including clerks, stenographers, etc.

Again, there is a class of professional people too proud to go into the public wards beside colored persons, to be visited, to the chagrin of both, by their parishioners; this class including poorly paid clergy, teachers, or merchants, who again cannot afford the cost of a private room, nor of a semi-private room where the physicians have the right to increase their charges in proportion.

It is the most humane system yet thought out to improve community spirit, and every town and city should put it into effect. It is a question of growth, and time, no two towns being so alike that one can duplicate the other's scheme.

There is a board of control, consisting of physicians, who are the scouts or pathfinders of distress, the clergy, to whom sick calls also come, the nurses, who must do the work, and the wealthy philanthropists who furnish the funds.

These middling poor are too proud to accept charity, but are anxious to pay as much as they can, yet they have the training that impels them to ask for expert care. They, therefore, receive the best treatment at two-thirds or three-fourths the cost, by having a graduate nurse only for the crisis, or for the one difficult daily treatment, the simpler duties being performed efficiently by less highly-trained helpers.

This scheme has been successfully carried on in the various cities above named, and we hope soon to hear of a net work of community help over the whole Dominion.

Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

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Original Contributions

UTERINE HEMORRHAGE AT AND AFTER THE MENOPAUSE *

BY F. A. CLELAND, B.A., M.B. (TOR.), F.A.C.S.
Surgeon and Gynecologist to Grace Hospital, Toronto.

In considering the question of uterine hemorrhage at the time of the menopause and after, it is necessary that one should have an idea of the normal changes which accompany the menopause and the time at which these occur. As we all know, the menopause, or climacteric, is the term applied to the change which takes place in the organism of a woman, resulting in the cessation of menstruation and of sexual activity. It is easy to define but not easy to explain. As no satisfactory explanation has ever been given for the onset of menstruation and its regular periodic recurrence, neither has a satisfactory explanation been given for the cessation of the function. Various theories have been propounded, and it is not within the scope of this short paper to review these; suffice it to say, that the majority of the men who have made, or are making a study of this question, are coming to believe that menstruation is under the control of the ovaries. In keeping with this theory, the most satisfactory explanation, to my mind, of the cessation of menstruation is given by J. G. Clark of Philadelphia. In 1899 Clark published the results of extensive anatomical and physiological investigations of the vascular system of the ovary. (*Johns Hopkins Bulletin,* Vol. 10.)

He injected a very large series of ovaries from individuals ranging in age from a six-months fetus to a woman many

* Read at the meeting of the Academy of Medicine, Toronto, February 2, 1915.

years past the menopause, and it is upon this work that his final conclusions were based. He says: "As there is no increase in the number of follicles after birth the obliteration of each primitive or partially developed one naturally decreases the total original number, which results in an increase in the medullary portion of the ovary at the expense of the follicle-bearing or cortical zone. The law of development in the follicle is from within outward, that is, the primitive follicles lying nearest the central circulatory tree are the first to undergo development. . . . Having reached a certain stage in their development, a retrogressive change following the degeneration of the ovum is inaugurated, and the original site, occupied by the follicle, is replaced by a very minute addition of the connective tissue to the stroma of the organ, which naturally builds up through successive accumulations the central area. Follicles in various stages of development and retrogression are noted in all ages after birth, and according to my observations the same principle involved in the obliteration of the unruptured follicles before puberty governs the organization of the corpus luteum after ovulation is inaugurated. . . . What determines the cessation of these progressive changes and the beginning of the retrogressive or obliterative process remains unexplained. The fact remains, however, that with the degeneration of the ovum the liquor folliculi is absorbed, and the cavity is filled in with large embryonic connective tissue cells arising from the theca interna.

"Through the gradual diminution of the blood supplied by the follicular wreath the excess of connective tissue undergoes hyaline changes and absorption until finally only a mere trace of the new growth remains. In this way the size of the ovary is maintained within reasonable bounds. . . . In the progressive growth of the ovary the obliterative changes just referred to continue until the follicle bearing area . . . becomes a narrow zone compared with its width in the new-born child.

"As a conclusion to this study the cessation of ovulation is ascribed to the gradual impairment of the vascular systems, through, first, densification of the ovarian stroma, and, second,

through the retroactive effect of imperfectly removed corpora lutea, which, as an end result, diminishes the blood-supply to the cortical area to such an extent that the growth of the primitive follicles is retarded and finally completely inhibited. These final retrogressive changes lead up to and constitute the menopause or climacterium."

In accordance with this theory we would expect the onset of the menopause to be gradual, since the growth of the primitive follicles is gradually retarded, and that menstruation would cease when the primitive follicles are completely inhibited. This is what ordinarily occurs, menstruation becoming either gradually less in amount or less frequent in recurrence until it finally ceases. Those rare cases where a woman menstruates regularly, both in time and amount, and then ceases suddenly, may still fit in with the theory, for here, although the change may have been going on gradually, sufficient ovarian tissue has been left to keep up a normal ovulation, but this small remaining amount may come under the influence of the retrogressive changes all at once and be quickly obliterated. Now the point I wish to make is that the menopause is a subsidence of the loss of blood and all cases which present at this time an increased flow, are pathological. Unfortunately among the laity and more unfortunately even among some members of the medical profession, there is a belief that mild or even severe hemorrhages are a necessary evil associated with the menopause and may be safely left to nature's care. Nothing more erroneous than this is possible or may be so far-reaching in its baneful results.

Moreover, one must recognize the wide range of ages at which the menopause may occur in order not to fall into error. Most authorities agree that it occurs in the majority of cases between the ages of 45 and 55. As these are foreign statistics, in order to check up whether these figures are approximately correct for Canada, I have looked over my last 400 case records and find that 50 of these women had passed the menopause. Of these 24, or 48 per cent., were between 46 and 50; 7, or 14 per cent., between 51 and 55; 9, or 18 per cent., between 41 and 45; 5, or 10 per cent., between 36 and 40; 3, or 6 per cent.,

between 31 and 35; 1 at 56, and 1 at 26. I have excluded all cases in which the menopause may have been delayed by any pathological condition such as fibromyoma or carcinoma. It will be seen that my figures show the menopause rather earlier than those given by most others. For the purposes under discussion it is sufficient to mention the two extremes—26 and 56 years—to show that the menopause may occur within the range of thirty years; consequently in considering any case of hemorrhage, age must not be taken too much into account. If a woman, say at forty, begins to show disturbance of menstruation, it ought not to be assumed that it is just the menopause and passed over on that account, for in the normal cause of that woman's cycle the menopause might not occur for fifteen years or more. During these thirty years a woman may be subjected to all the causes of hemorrhage incident to sexual activity, for she may bear a child at any time till the complete cessation of the flow. In fact a few rare cases are on record of women having borne a child after the flow has stopped.

It is during these years that carcinoma usually makes its appearance and that fibromyomata attain their greatest activity. Therefore it is incumbent upon the medical practitioner to attempt to find the physiological or pathological cause of the increased flow even if it is not severe enough to be classed as a hemorrhage. The first duty is to ascertain if a local cause is present. It is nothing short of criminal to allow a woman complaining of irregular bleeding to go without examination simply on the supposition that she is suffering from the menopause. Any reluctance on the part of the patient must be overcome by judicious explanation and advice. No false modesty should permit the examination to be deferred. True, many of these women bleed so constantly it is almost impossible to find opportunity for examination at a time when bleeding is absent, and most women object to examination when bleeding. But the physician should not hesitate; by the use of rubber gloves and proper arrangement of a protective sheet it can be accomplished without shocking the sensibilities of the most sensitive patient. Besides, certain advantages are gained by making the examination at this time. The character of the blood may give some

information. It may be discovered whether the blood is coming from the uterus or from a vulvar or vaginal lesion or whether it is coming from the cervix or from the body of the uterus. Should a polypus be protruding it may be seen and the whole trouble easily cleared up by its removal. If the cervix is involved with cancer a diagnosis may be made at once, or if further evidence is required, a piece may be snipped off and a microscopical examination made. Should the blood be coming from the uterus itself, arrangements must be made at once to curette and have the scrapings examined. This is absolutely imperative and applies to bleeding before, at, and after the menopause; and I believe this should always be done under anesthesia, when a complete examination of the pelvis may be made, and pieces obtained from different parts of the uterine cavity, otherwise if the part involved is small it may be missed entirely and a false security result. The importance of a very thorough examination cannot be emphasized too much and when one considers that, according to the best available statistics one woman in every eleven, after the age of 35, dies of cancer of the uterus, and that in 65 per cent. of all cases of hemorrhage after the menopause, the cause is cancer, one need not apologize for reiteration. Within the last year four patients have come under my notice who had been suffering from irregular bleeding for periods varying from six to eighteen months, who had each been told by her physician that it was due to the menopause and in no case had an examination been made; in each case advanced carcinoma of the cervix was present. During the last five years I have seen ten or twelve similar cases, but it was not always the fault of the physician that they were so far advanced. The women do not present themselves for examination early enough. They must be made to understand that irregular or increased bleeding is always pathological; the education of the public in this regard is largely in the hands of the general practitioner. In passing it may not be amiss to point out that the first symptom of cancer of the uterus is not hemorrhage, but a thin watery discharge which becomes serosanguineous and later when the disease is well advanced becomes bloody and later still foul smelling and offensive. In practically

every case of cancer, the information can be elicited by a careful enquiry, that the bleeding was preceded for some months by a watery discharge. It is only by keeping these points well in mind that we can hope to make earlier diagnoses in such grave conditions and, by getting these cases early, increase our percentage of cures.

In regard to fibromyomata a great deal of work has been done by various observers to explain the bleeding in these conditions. Clark injected the arteries with ultramarine blue in 10 per cent. gelatine. (*Johns Hopkins Bulletin,* Vol. 10.) Sampson of Albany has also investigated a large series of cases, injecting the arteries with Venetian red and the veins with ultramarine blue in 15 per cent. gelatine; for stereoscopic radiographs he used bismuth carbonate (Mallinckrodts) in 15 per cent. gelatine solution. (*Surgery, Gynecology and Obstetrics,* Mar., 1912.) The results of all the experiments have shown that in order to cause hemorrhage, myoma must impinge upon the endometrium or seriously disturb the circulation of the uterus, and these cases are not amenable to general treatment. If a woman is fortunate enough to pass through the menopause without serious hemorrhage or pressure symptoms, the myoma atrophies with the rest of the uterus and gives no further trouble. This fortunate result is however rare. In the usual course the myoma increases in size during the fourth and fifth decades and if it does not manifest its presence by pressure symptoms. it will do so by the menstruation gradually increasing both in length of the periods and in amount. The normal cycle which the woman has established is disturbed. In such cases, in early menstrual life, the highest aim of conservative surgery is to remove the growth and by a painstaking plastic operation, retain the uterus, so that it may carry out the function intended for it. In the early forties and later, however, when the active child bearing period is past, as a general rule one is safer in practising total extirpation by the route which gives promise of the greatest safety to the patient.

It is about the time of the menopause we meet the cases which are classified as general fibrosis of the uterus. In these one does not encounter the whorled fibromyomatous nodules of which

we have just spoken but instead one finds the uterus has undergone an increase in fibrous tissue throughout. Upon examination usually some enlargement may be detected and, as a rule, the uterus feels harder than normal, but it is not always easy to differentiate this condition from the hypertrophied uterus of a woman who has borne a number of children. These cases usually resist treatment and if the hemorrhages are increasing in amount and interfering with general health, they call for hysterectomy. In this general class may be placed the cases showing arterio-sclerosis of the vessels of the uterus. In some of these the uterus may be slightly enlarged, but often no enlargement occurs, or it may be even smaller than normal. The vessels of the uterus may show marked arterial degeneration where none may be demonstrated in other parts of the body. Palliative treatment may suffice here, but in many cases the menace to good health or even life will only be removed by removal of the uterus.

Then we come to the cases where no lesion can be found to explain the bleeding. These are the cases which would be curetted once, twice, and perhaps a third time without any relief, and which formerly, and even yet, are so often classified under the misleading and overworked term of endometritis. In seeking to explain this condition a great deal of work has been done by various clinicians and laboratory workers. Schichele and Keller in 1912 (*Archiv für Gynaekologie,* Berlin, XCV., No. 3), published the results of an exhaustive research in 430 cases and advocated dropping the term glandular endometritis. They say that there seems to be no etiological relation between these glandular changes and hemorrhages from the uterus; the changes were sometimes accompanied by hemorrhage and again there was severe bleeding without these changes. The failure of curettement to cure in so many cases confirms the lack of connection between the hyperplasia and hypertrophy of the glands and the hemorrhage.

L. Adler writing from Schauta's clinic at Vienna (*Medizinische Klinik,* Berlin, Feb. 1, 1914, X. 5), states that his research has confirmed the assumption that endometritis has nothing to do with uterine hemorrhage; the uterus proper is

seldom responsible for the hemorrhage; the ovaries or reduced coagulating power of the blood, the effects of constipation and of emotional stress are more likely to be the factor or factors involved inducing increased uterine flow. He says the curette has lost its vogue since it has been shown that it had a curative effect on only 10 per cent. of 500 cases of uterine hemorrhages compiled by Busse.

H. B. Whitehouse (*Lancet,* London, April 4, 1914), says: "If the examination of the curetted endometrium is taken in conjunction with the menstrual discharge and care is taken to co-relate the appearance of the endometrium with the period of the sexual cycle, much valuable information may be gained as to the cause of hemorrhage. This is proved by the examination of repeated scrapings from the same uterus, and it accounts for the fact that in glandular hyperplasia of the endometrium, curettement is only of temporary benefit."

The correctness of these views being recognized more and more by gynecologists everywhere, and at the last meeting of the Pathological Section of this Academy, B. P. Watson showed interesting lantern slides which confirm these researches. My own clinical experience and the study of the routine scrapings from the uterus, done at St. Michael's and Grace Hospital laboratories, leads me to endorse these conclusions.

Curettage is one of the most abused operations of surgery. The simplicity of its technique and the general belief in its freedom from danger, have led to its unnecessary use, often with disastrous results. We have known of women dying after a simple curettage and the morbidity resulting from it is not easy to estimate. Although as a rule it is not a grave operation, it should not be undertaken without all due care; as a matter of fact it is seldom called for unless in conjunction with other operative measures required. Pathological conditions of the endometrium which may be benefited by curettage are rare; even the fungus or villous forms are rarely cured by it and these cases generally come to hysterectomy. At or near the menopause, the curette is of little service except for diagnostic purposes.

What are we to do then in these cases where no gross pathological lesion is to be discovered? Such are among the most

puzzling and perplexing problems with which the general practitioner and gynecologist have to deal. These cases occur both before and after the menopause. One safe rule to lay down is that no treatment should be instituted until malignant disease has been absolutely excluded; then palliative measures may be used. If, in spite of all treatment, the hemorrhages continue as they sometimes do and the patient is going down hill, hysterectomy should be performed. In this type of case which is usually uncomplicated and the uterus is small, a total extirpation may be done easily and with comparative safety; in fact the danger from the operation is not so great as the danger of an intercurrent malady attacking an exsanguinated patient. The choice of the abdominal or vaginal route will depend upon the size of the vagina and the operator's familiarity with the different techniques. Before undertaking the operation it is assumed that all medicinal treatment has been exhausted.

The treatment of each particular case will depend on its careful investigation, and it is here that often a general cause may be discovered that may account for the hemorrhage. Among these may be mentioned heart disease, interfering with the vascular circulation, liver disease interfering with the portal circulation, disease of the kidneys, gout, obesity and various blood conditions. Here the treatment indicated is that required for the general condition. I would call attention to the importance of recognizing syphilis as a causative factor in some cases of hemorrhage. It is one of the possibilities seldom thought of and the importance and necessity of using the Wassermann test is apparent. I have seen two such cases where no other evidence of the syphilitic nature of the trouble was present.

In some cases disturbances attributable to the ductless glands may be a cause of the hemorrhage. E Sehrt (*Munchener Medizinsche Wochenschrift,* Feb. 10, 1914, LXL. No. 6), says: "The connection between the thyroid and the ovaries seems to be particularly close and the thyroid may be responsible for conditions in the ovaries which entail bleeding in the uterus. We understand this a little better since we have learned the characteristic behavior of the blood when the thyroid is func-

tioning to excess or not enough. With hyperfunction the blood is abnormally slow in coagulating. With deficient function it coagulates abnormally fast." Sehrt found in 56 cases of uterine hemorrhage without discoverable local cause that 38 had all the signs of pronounced hyperfunctioning of the thyroid. On this basis he gave thyroid treatment with marked benefit; not only the hemorrhages but the general health showed a change for the better. Personally I have not seen much benefit from thyroid, ovarian, corpus luteum or pituitary extracts, at or after the menopause.

The best general lines to follow in treatment are, rest in bed hot douches or saline baths, regulation of the bowels, proper dieting or change of climate and outdoor life. Although ergot has lost its vogue for uterine hemorrhage, I have found pil ergotin of great value about the time of the menopause; it seems to correct vasomotor disturbances, and besides lessening a slight hemorrhage, has a most beneficial effect upon the hot flushes, headaches, palpitation of the heart and nervous and mental depression from which these women so often suffer.

Roentgen rays have been advocated by some men; the effect however, is said to be due to the influence upon the ovary rather than upon the uterus directly. Radium has been tried, and some success has been reported, but it is condemned in other quarters. With these two latter methods I have had no experience.

In view of the success which has been attained by blood transfusion in various hemorrhages, it is possible that this treatment may be used in the future with advantage in severe cases. The recent simplification of technique makes this method more available.

Summary.

1. The menopause is probably induced by retrogressive changes in the ovary.

2. The menopause is *subsidence* of the flow of blood; an *increase* in the flow is always pathological.

3. The menopause may occur during a period of thirty years or more.

4 A local examination should always be made where hemorrhage occurs near the menopause.

5. The necessity of professional and public education regarding the early symptoms of cancer of the uterus.

6. In severe cases of uterine hemorrhage which have resisted all medicinal treatment and the patient is becoming progressively worse, hysterectomy is indicated.

7. There seems to be no connection between hyperplasia and hypertrophy of the endometrium and hemorrhage from the uterus.

8. At or near the menopause the curette is of little service except for diagnostic purposes.

9. No palliative measures should be tried till malignant disease is excluded.

10. General conditions may be the cause of hemorrhage, and syphilis should not be overlooked.

11. Organotherapy is of little value in hemorrhage after the menopause.

12. Blood transfusion as a possibility in treatment of severe cases.

57 Bloor St. East, Toronto.

PHYSICIAN WANTED—HOSPITAL APPOINTMENT

A physician is required immediately to fill the position of Medical Superintendent at the Emery Hospital, Anand, Gujerat, India. Anand is on the main line between Baroda and Ahmedabad. The Emery Hospital was established by Dr. Andrews about twelve years ago as a small dispensary and dressing-room in his bungalow. It was named after Miss Emery, who founded it in memory of her sister and 1st ward after its donor, Mrs. Pennell, the mother of Dr. Pennell, of Bannu. The Hospital at present has accommodation for forty in-patients and the work is growing daily. The applicant must be a Christian and interested in Foreign Mission work. Full particulars on application to Colonel Gaskin, Salvation Army headquarters, Toronto, Ontario.

Militia and Naval Medical Services and Ambulance

Civis Britannicus sum et Canadensis.

INSPECTION OF No. 3 GENERAL HOSPITAL BY H.R.H. THE DUKE OF CONNAUGHT

On April 22nd, on the campus of McGill University His Royal Highness the Duke of Connaught inspected the men of No. 3 General Hospital (McGill), Colonel H. S. Birkett commanding. After the inspection His Royal Highness, accompanied by the Duchess and Princess Patricia, attended the informal convocation in the University Assembly Hall, at which degrees were conferred on nineteen medical men, going overseas with the hospital. In the evening His Royal Highness dined with the officers of the unit.

THE ROYAL ARMY MEDICAL CORPS

The following are some of the members of the profession in Ontario who have joined the Royal Army Medical Corps in response to the recent appeal made by the British War Office:

E. F. Frederick, 300 Charlotte Street, Peterborough, Ont.; J. F. McLay, Grimsby, Ont.; J. W. Sutherland, 67 Third Avenue, Ottawa; G. C. Anglin, Weston, Ont.; T. O. Hutton, 360 Queen Street, Sault Ste. Marie; Victor McWilliams, 427 Bloor west, Toronto; W. E. Pickup, Fort William; J. C. McLeod, Kincardine; A. F. Mavety, 173 Mavety Street, West Toronto; R. E. Hotkins, St. Michael's Hospital, Toronto; J. N. Humphrey, Wellesley Hospital, Toronto; F. M. Walker, Toronto; H. W. Kerfoot, Hospital for Insane, Penetang; K. G. McKenzie, Stationary Hospital, Exhibition Camp; F. W. M.

Smith, Bayfield; N. King Wilson, 380 Bloor Street west, Toronto; O. W. Colbeck, Haileybury; A. Henderson, 152 Wilton Avenue, Toronto; R. Tennent, Belleville; E. A. Urie, Guelph; C. F. Wright, Iroquois Falls; F. J. Livingstone, Hospital for Sick Children; M. H. Patterson, Hospital for Sick Children, Toronto; Austin Evans, Whitby; H. Crassweller, 133 Ouellette Avenue, Windsor; J. V. Brown, Stationary Hospital, Exhibition Camp, Toronto; R. L. Shields, Port Hope; J. Marcey, Parry Sound; F. J. Colling, College Street, Toronto; A. H. Machlen, Goderich; L. M. Dawson, 5 Irving Avenue, Ottawa; K. M. Simon, 653 Bloor west, Toronto; R. H. Bonnycastle, Campbellford; J. J. Middleton, 53 Bloor west, Toronto.

Out of hundreds of applications the following have been selected as officers of the Royal Army Medical Corps for overseas service. Captains, R. Tennant, Belleville; R. L. Shields, Port Hope. Lieutenants, J. W. Sutherland, J. L. Mavety, and L. Dawson, Ottawa; R. H. Bonnycastle, Campbellford; E. V. Frederick, Peterborough.

Lt.-Col. Marlow has been officially appointed A.D.M.S. with 2nd Division at the Exhibition Camp, and will take the place of Lt.-Col. J. T. Fotheringham, now in England, and who has received the appointment of A.D.M.S. Headquarters Staff, 2nd Division, C.F.E. Major A. D. Warren is D.A.D.M.S. at the Exhibition Camp.

NURSES LEAVE FOR THE FRONT

Only a small group of friends and the officials of the Canadian Red Cross Society gathered at the Union Station on April 19th to bid farewell to the fourteen of the twenty-one Canadian nurses who left Toronto at nine o'clock to commence their journey to the firing line.

Four nurses from Montreal and three from Ottawa joined the Toronto group, and the small Canadian band crossed to England on the Corsican, which sailed on April 20th.

CANADIAN DOCTORS BUSY

Capts. G. S. Strathy and Bruce Robertson, who reached England about May 1st with the No. 2 Casualty Clearing Hospital, have been appointed to duty at Queen's Canadian Hospital at Shorncliffe, where are many Canadians, wounded in recent engagements.

DR. ANGLIN A LIEUT.-COLONEL

Dr. W. G. Anglin, who will be chief surgeon with Queen's Stationary Hospital, which left last month for France, was granted the rank of Lieut.-Colonel by the Minister of Militia.

THE UNIVERSITY BASE HOSPITAL

No. 4 General Hospital, including the Staff, Nursing Sisters, Orderlies and full equipment as we go to press expect to leave Toronto any day for France. It is expected that they will be stationed at some point near the sea coast, not far from Ostend, though we understand nothing will be definitely settled as to this until they reach England. Our readers will be given full particulars regarding the different Canadian Hospitals from month to month. We are also trying to arrange for the publication of a monthly letter from the University Base Hospital, commencing with our August issue.

CAPTAIN G. H. McLAREN AT BOULOGNE

A recent cable from Mrs. McLaren in London to Toronto relatives states that Capt. George H. McLaren, of the 48th Highlanders, reported wounded, is in the hospital at Boulogne.

Capt. McLaren comes of a military family. His father was the late Col. Henry McLaren, of the 13th, Hamilton. Two of his brothers are graduates of the Royal Military College at Kingston, and are also at the front. F. M. McLaren was with

the 13th, and is with the first contingent. Another brother was with the army in India.

Capt. G. H. McLaren was an enthusiastic shot, and held the School of Musketry certificate. He was treasurer of the Rifle Committee of the 48th Highlanders, which regiment he joined in December, 1910.

Although by profession a physician practising his calling as oculist at 176 Bloor Street east, Dr. McLaren's whole interest in the 48th was on the militant side, and when he went to the front it was as a company officer.

PETERBOROUGH GIVES A HOSPITAL UNIT

The Medical Society of Peterborough, Ont., have offered to, and had accepted by the War Office, a fully equipped hospital unit composed of surgeons, nurses and orderlies. They will leave for the front at once. The profession of Peterborough have, in addition, agreed to subscribe a stated sum each and every month during the war toward the upkeep of their unit.

Colonel Dr. John T. Fotheringham, A.D.M.S., arrived in England on May 1st.

Dr. Herbert Bruce gave a most enjoyable Garden Party on Wednesday, May 12th, as a farewell to Colonel Roberts, Officers and Nursing Sisters of No. 4 General Hospital.

Major Dr. D. A. Clarke, of Toronto, Regimental Surgeon Third Brigade Artillery, was wounded in the head at the battle of Langemarck, but is, we are delighted to know, recovering nicely in London.

Dr. Fernand Perras, of Montreal, left London early in May for Brindisi, where he will board a steamer for Serbia. He is one of the physicians from the province of Quebec who has responded to the call for medical volunteers to aid in combatting the plague of typhus.

A LETTER FROM THE FRONT

We were pleased to receive recently from Private A. G. Condie, now with No. 2 General Hospital, 1st Canadian Contingent, and who, ere leaving Toronto, looked after the making-up and general type arrangement of The Journal, a very interesting letter regarding his experience with the troops at Salisbury Plains, of which the following is part:—

"As for the war being over before the snow flies, it is very doubtful in my mind; my reason for thinking so is that they are building a number of huts in the camp, which I presume are for winter use. The casualty lists are certainly very heavy, and in my estimation will be much larger when they start the big advance, which I think will take place next month. It is published in company orders that we are to take great precaution in the handling of German wounded. I would imagine that they are afraid of a typhus epidemic among them. My work at present is with the sanitation section, which is a very important branch around a hospital, in fact in all units. Capt. Moorehouse, of Toronto, is our able sanitary officer, and, believe me, it is not a very pleasant job. Sanitation at home and in the field are as different as night from day. We have no good drains, and it would take altogether too long to put them in, therefore it is a case of using your best judgment as regards drainage. It becomes a serious problem amongst other branches of the service, but in hospitals, sanitation is impressed more on the minds of the men, Our bath tents are arranged in one line, with two baths to each tent, with a small drain running into a larger one, which leads to another soak pit. This pit is dug about nine feet square, and here on this particular ground it is dug twenty feet deep. One thing one must study is the soakage of the different kinds of ground. For instance, if we got a two foot soakage in twelve hours it would save us from going so deep, but the ground here will only soak six to eight inches in a night. The excreta is covered with lime and earth each morning; the urine is drained into a soak pit; all kitchen waste is burned in our incinerators, which are of a more modern build than the old kind used in military camps at home. The grease water is also drained into soak pits, by means of what we

call a grease trap. It is merely a square box perforated at the bottom, and straw laid in to catch the grease. This straw is burned every morning.

"Excreta from bed pans is carried by the orderlies to the incinerator, where it is mixed with straw or paper, which is then burned. . . . I will try and write you something soon about the admission and discharge of wounded in a military hospital."

PERSONALS

Dr. J. W. S. McCullough has been appointed assistant sanitary expert on the international Joint Commission on the pollution of boundary waters.

We wish to tender the sympathy of the profession to Dr. Harley Smith, on the loss by death of his sister.

The profession in Canada will regret to hear of the death, at his home in Yonkers, N.Y., on April 26th, of Mr. F. W. R. Eschmann. Mr. Eschmann has for years been President of the New York Pharmacal Association, The Arlington Chemical Company and the Palisade Manufacturing Company, represented in Toronto by Mr. R. L. Gibson, 88 Wellington Street West.

The journal regrets extremely that notwithstanding the fact that Dr. R. A. Reeve received the unanimous vote of the Nominating Committee of the Academy of Medicine, Toronto, with his usual modesty, he asked that his name be not considered. It was with very considerable misgiving that the Committee acceded to Dr. Reeve's request, feeling that his services to the Academy since its inception were too valuable to lose. However, we feel that his absence will be for but one year, and that our good friend will once again adorn the Council Board twelve months hence.

Dr. G. P. Sylvester, 585 Church Street, Toronto, has decided to, in future, confine his practice to diseases of the stomach and intestines. Dr. Sylvester has for years been giving special attention to gastro-enterology, and recently took a special course under Dr. Einhorn, New York City, the well known authority on gastric disease, studying particularly the subject of duodenal feeding and general metabolism in gastric and duodenal ulcer.

Society Proceedings

THE ACADEMY OF MEDICINE, TORONTO

The Academy year came to a close on May 4th, when the annual meeting was held at 4 o'clock at 13 Queen's Park. The attendance was remarkably good. President H. B. Anderson occupied the chair, and Hon. Secretary J. H. Elliott was, as usual, at his post. The meeting was devoted to the reports of Council, Trustees, Standing Committees, Hon. Secretary, Reports of Sections, Hon. Treasurer, Auditors, and Special Committees. Considerable interest was taken in the report of the Committee on Nominations, and the election of officers and members of Council for the ensuing year. The report of the Committee on Nominations was accepted, and the following Fellows will be the officers for 1915-16:—

President, Dr. W. H. B. Aikins. (Accl.)
Vice-President, Dr. H. A. Bruce.
Hon. Secretary, Dr. J. H. Elliott. (Accl.).
Hon. Treasurer, Dr. W. A. Young. (Accl.).
Elective Members of Council: Drs. H. J. Hamilton, Edmund E. King, C. L. Starr, N. A. Powell, Harley Smith, J. H. McConnell, F. A. Cleland, D. J. Gibb Wishart.
Alternates: Drs. W. Goldie, S. M. Hay, J. Ferguson.
The Chairmen of the different sections will be as follows:
Chairman Section of Medicine, W. B. Thistle.
Chairman Section of Surgery, J. M. Cotton.
Chairman Section of Pediatrics, Jos. S. Graham.
Chairman Section of Pathology, J. B. Fitzgerald.
Chairman Section of Oto-Laryngology, Colin Campbell.
Chairman Section of State Medicine, George Porter.

During the year there have been held the following meetings:

Section Meetings, 40.
Regular Academy Meeting, 7.
Special Academy Meetings, 2.
Regular Council Meetings, 8.
Special Council Meetings, 10.
Library Committee Meetings, 9.
Publication Committee Meetings, 13.
Programme Committee Meetings, 10.

There are now 432 Fellows, including Life, Honorary and Corresponding. There are 26 Fellows more than a year ago.

The Academy has lost by death three Fellows: Drs. Alton H. Garratt, Geo. Millichamp and Bruce Riordan. Dr. Price Brown was elected a Life Fellow, and Dr. Leathes, an Hon. Fellow.

The Retiring President is to be congratulated on the able, dignified and efficient manner in which he has performed his duties during the Academy year just closed. He has shown himself to be a most acceptable chairman and has undoubtedly done his share of work in making the Academy year the success it has been. We think we can add that each and every officer and member of Council has participated in that success, the eighth Academy year having been one of the very best in its history. For the new President, we bespeak the unanimous support of the Council and officers for the ensuing Academy year.

THE CANADIAN MEDICAL ASSOCIATION MEETING POSTPONED

The following letter, received too late for our May issue, will explain itself. It is signed by Dr. Frederic Brodie, Local Secretary, Vancouver, B.C.:

I am instructed by the Committee of arrangements to inform you that the annual meeting of the Canadian Medical Association, which it was expected would be held in Vancouver, July 6, 7, 8 and 9, has been postponed until after the termination of the war.

The number of Canadian practitioners either in, or contemplating, active service abroad, has made this step imperative, and after receiving innumerable letters from all over Canada, suggesting this action, it was finally decided upon.

It is expected that the next meeting will be held in Vancouver, as soon as practicable after the declaration of peace, the definite dates of which will be announced later.

THE ONTARIO MEDICAL ASSOCIATION AND THE ONTARIO HEALTH OFFICERS' ASSOCIATION

On account of our date of publication we regret being unable to refer at length to either the Ontario Medical Association or the fourth annual conference of Health Officers, which took place in Peterborough, Ontario, a few days ago. This, we hope to do in our July number. As we go to press, we are much gratified to learn that there is every prospect of a splendid attendance at both meetings. Dr. D. J. Gibb Wishart, of Toronto, President of the Ontario Medical Association, and Dr. W. R. Hall, President of the Ontario Health Officers' Association, with their executives, have worked late and early to make their respective meetings banner ones, both in point of attendance and scientific interest, and we earnestly trust that their hopes and expectations will be far exceeded.

MOUNT CLEMENS PHYSICIANS INAUGURATED A PRAISEWORTHY UNDERTAKING

A number of physicians residing in Mount Clemens, Michigan, all of whom are members of the Macomb County Medical Society, an active unit of the American Medical Association, have recently inaugurated a movement that deserves approval because of the public spirit by which it has been prompted.

In the past many of the people have, in going to Mount Clemens for the benefits of the baths made the mistake of supposing it to be unnecessary to obtain medical advice. There

has been a general impression that rheumatism, gout and most of the other diseases that human flesh is heir to could be cured if the sufferer would merelv hurry to Mount Clemens and take the baths for a week or two in a haphazard way.

For the purpose of enabling physicians who find it advisable to send their patients to Mount Clemens, some twenty-six or twenty-seven members of the Macomb County Medical Society have subscribed to a fund which is to be used in advising doctors throughout the country of the facts relating to the conditions which it is advisable for the invalid to observe.

It should be mentioned in this connection that the Mount Clemens physicians who participate in this public-spirited undertaking are proceeding in strict accordance with ethical practice.

PORTRAIT OF THE LATE HON. JOHN ROLPH, M.R.C.S., ENG., LL.D.

Dr. Walter B. Geikie, of Toronto, who is known so well to the profession of Canada as the Father of Trinity Medical School and one of the Nestors of extra-mural medical education in Canada, was good enough to present, through Dr. Marlow, on April sixth to the Academy of Medicine a portrait of the late Hon. John Rolph, M.R.C.S., England, taken when Dean of the Medical Faculty of Victoria University, Toronto, which office he filled till 1870.

The following is the letter that accompanied the gift and explains itself:

Dear Dr. Marlow,—I have had it in my mind for some time to present, through you, to "The Academy of Medicine," a good-sized portrait of the late Hon. John Rolph, M.R.C.S., Eng., LL.D., taken when he was Dean of the Medical Faculty of Victoria University, Toronto, and still actively discharging the duties of the position he held till 1870. That year he sent in his resignation. He died in 1870, a few months after he had ceased to discharge his, to him, most congenial duties. His resignation gave me such a shock that I sent in my own, as his

colleague, at once. A year later I suggested the setting agoing of what in a few years became the well known "Trinity Medical College" and the picture I ask you to present to the Academy of Medicine hung in the largest class room of Trinity Medical College till 1903. That year changes took place, which I, as its founder, strongly opposed, and have never regretted doing so, and the great bulk of our students and graduates everywhere thought exactly as I did in this matter.

At this time the picture now presented was given to me, and it has hung ever since in my office. I greatly value it, and never more highly than now; but as the Hon. Dr. Rolph was very largely the founder of truly practical medical education in Ontario, I think the proper place for his portrait to be is the Academy of Medicine, Toronto, where he taught and lived so long, and in placing it here, I feel sure it will be well and safely kept.

From 1843 till his death he was a most faithful and able teacher. I heard courses of lectures delivered by him on Descriptive Anatomy, Physiology, Principles and Practice of Surgery, Principles and Practice of Medicine, and on Clinical Medicine, and I have never heard one lecture he delivered without being much impressed by the fact, that whatever its subject might be, the lucidity and the many charms of his speaking, the earnestness, and the extremely practical character of all he said, fully explained how his students were most eager never to miss any of his lectures. This was my own feeling, and I never heard any other expressed by members of his classes. No wonder I valued his portrait, and feel it at once a pleasure and a duty to present it, through you, to the Academy of Medicine, and hope that all the members may value and prize it as that of a truly great Canadian medical teacher.

Yours faithfully,

WALTER B. GEIKIE.

Holyrood Villa, April sixth, 1915.

We would like to assure the donor of the portrait that his gift is appreciated exceedingly and that it will adorn the walls of the Academy, already hung with several of the masters of our profession in the Dominion.

Obituary

THE LATE MRS. GEORGE STERLING RYERSON

As we go to press, we learn with deepest sorrow that Mrs. G. S. Ryerson, wife of Dr. George Sterling Ryerson, of College Street, Toronto, has been probably lost owing to the wreck of the Lusitania. We still trust that the information to this effect, received through the Hon. George Perley, Canadian Commissioner, will turn out to be correct. If not, we would like Dr. Ryerson, who was only recently so sorely bereaved in the death of one of his sons at the front, to realize that in this second break in his family circle, the heart of the entire Canadian Medical Profession goes out to him in sympathy.

THE LATE DR. W. W. OGDEN

Dr. William Winslow Ogden, former member of the Toronto Public School Board for 44 years, and a member of the Board of Education from 1906 to 1911 when he retired, passed away suddenly on April 22nd, at his residence, 550 Palmerston Avenue. The late Dr. Ogden was one of the best known educationists in the Dominion of Canada.

Taking his service with the Toronto School Board, and when it was changed to the Board of Education when he was elected by a vote of 10,006 in 1906, retiring in 1911, he had been almost half a century without a break in the service of the city as an educational administrator. Several times he was elected to preside over the Toronto School Board as well as the Board of Education. He was held in the highest esteem by all his colleagues and was universally admired for his manly characteristics.

The late Dr. Ogden was born in Peel County, near Port Credit, in 1837, and was 78 years of age. He entered the

Toronto Public Schools, studied at Toronto Academy, and later at Victoria University. He was a graduate of Victoria University, taking his M.B. in 1878. The deceased practised his profession throughout in Toronto, was lecturer on medical jurisprudence and toxicology at the Toronto School of Medicine for 1869 to 1887. Since then he was professor of forensic medicine at Toronto University. In 1862 he married Elizabeth Price McKeown, who survives him.

DEATH OF DR. GEORGE FORD, STRATFORD, ONT.

Deep regret was occasioned by the death on April 19 of Dr. George Ford, Stratford, Ont. He was thirty-seven years of age, and was born in Listowel, being a son of the late George Ford of that town. Educated in Listowel, Dr. Ford taught school for a few years, later studying medicine at the University of Toronto. being graduated as silver medalist in 1906. After a post-graduation course in England and Scotland, Dr. Ford practised at Shakespeare for seven years, his name being a household one in that district. Last year he moved to Stratford, and was winning a large circle of friends when his illness came.

DEATH OF DR. JAMES SPENCE, TORONTO

Dr. James Spence, of 189 Jameson Avenue, died in Wellesley Hospital on April 19, following an illness of several months' duration. The deceased was in his 61st year, and besides being well known in his profession took an active part in educational work, having been a member of the Toronto Public School Board for nine years. He was chairman of the Board in 1901.

Born in Elora, Wellington county, in 1854, he was educated at Rockwood Academy, and graduated from the University of Toronto in 1884. The widow, one son and one daughter survive.

Correspondence

The Editor cannot hold himself responsible for any views expressed in this Department.

To the Editor of the CANADIAN JOURNAL OF MEDICINE AND SURGERY:

Dear Sir,—The Out-patients' Department of the Toronto General Hospital has been conducted in the new building for the last eighteen months with an attendance of 10,300 patients, who have visited the department 38,983 times.

The administrative officers have endeavored to keep down any abuse of the privileges afforded with, what appears to be, considerable success. It is hoped that the profession will co-operate and report those cases which may escape the inspectors.

Patients earning over a certain sum are refused advice or treatment unless bringing a note from their physician stating that they are unable to pay for consultation or special investigation.

Not many of the profession have taken advantage of this latter privilege, though every endeavor is made to furnish them with reports on these cases.

Shortly after the inception of the Medical Clinics of the Department, the principle was adopted that any practitioner who had some definite problem for investigation would be attached to the staff and provided with all available clinical material and laboratory space.

Besides this, there is room for ten more on the staff for routine work in which experience as to the scope of the work can be gained, and hence the opportunity of selecting a subject of interest for investigation.

At present there are twenty-six members on the staff of the Medical Department; in the General Clinic and the Sub-departments of Tuberculosis, Neurology, Dermatology, Heart, and Gastro-Intestinal.

The latter two Clinics have been formed recently, because of the advances made by members of the Department in these particular fields.

WM. GOLDIE.

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Biological
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